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ABSTRACT

Volume 12 of the Mid-Western Educational Researcher contains four issues. The first issue includes kick-off, keynote, luncheon, and presidential addresses from the annual meeting of the Mid-Western Educational Research Association (MWERA), held in Chicago, Illinois, in October 1998. Issue 3 is the program for MWERA's annual meeting in Chicago, Illinois, October 1999. Issue 4 focuses on teacher mentoring in the Midwest. Articles are: "Policy Research in Higher Education: Data, Decisions, Dilemmas, and Disconnect" (Edward R. Hines); "Western Governors University: University of the Future" (Robert C. Albrecht); "Academic Careers in the Twenty First Century: New Options for Faculty" (Judith M. Gappa); "Free Market Policies and Public Education: At What (Opportunity) Cost?" (Kim K. Metcalf); "Conference Highlights" (Jeffrey B. Hecht); "Electronic or Paper? Comparing Submissions to MWERA-98" (Jeffrey B. Hecht); "The History of MWERA and the Role and Scope of Its Historian" (Thomas S. Parish); "The Use of Tests of Statistical Significance" (Thomas R. Knapp); "The Value of Multimethod Qualitative/Quantitative Research Methodology in an Educational Program Evaluation: A Case Study" (Catherine C. Knight, Walter J. Kuleck); "Multimethod Analysis of Mathematics Achievement Tests" (Dimiter M. Dimitrov); "Review of 'Conducting Survey Research in the Social Sciences'" (John M. Linacre); "The Status of High School Scheduling in Illinois" (Donald G. Hackman); "Time Spent on Higher-Order Tasks in Two Teacher-Apprentice Options" (Elizabeth A. Wilkins-Canter, Audrey T. Edwards); "The Relationship between Culture and Cognitive Style: A Review of the Evidence and Some Reflections for the Classroom" (Joan Thrower Timm); "Mentoring: An Introduction" (Mary K. Bendixen-Noe); "Issues in Mentoring Programs for Teachers" (Deborah L. Bainer); "Mentor Accountability: Varying Responses to the New Jersey Provisional Teacher Certification Program and Their Implications for Proposed Changes in Wisconsin Licensure" (Anne D'Antonio Stinson); "Leading the Way...State Initiatives and Mentoring" (Carmen Giebelhaus); "Mentoring: Aim and Assess" (Charles K. Runyan); "The Principals' Role in Mentor Programs" (Barbara L. Brock); "Mentoring and the Impact of Local Teacher Organizations" (Mary K. Bendixen-Noe); "With a Little

Help from My Friends: A Course Designed for Mentoring Induction-Year Teachers" (James A. Salzman); and "Extending the Vision: Mentoring through University-School Partnerships" (Connie Bowman). An index of 1999 articles is included. (SV)

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MID-WESTERN EDUCATIONAL RESEARCHER

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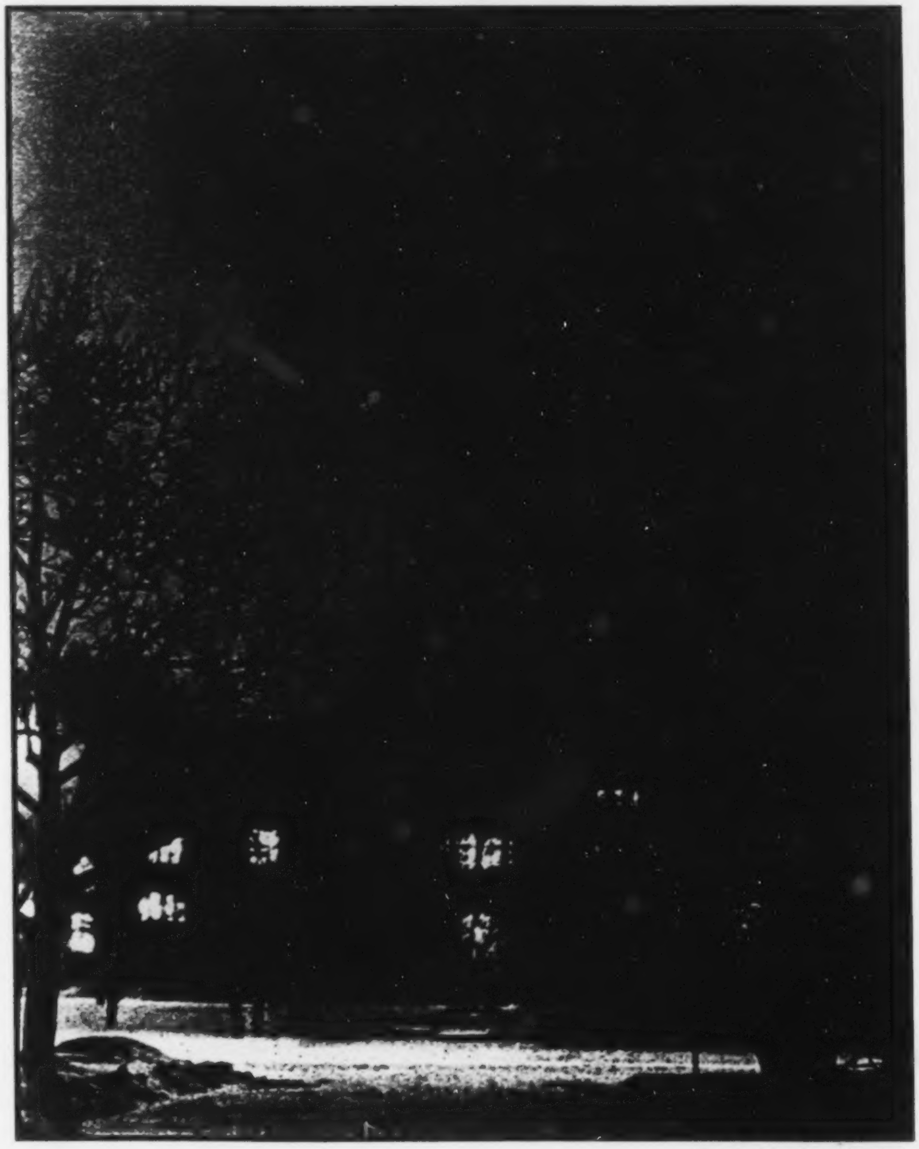

The University of Toledo

On the Cover

The history of the College of Education and Allied Professions, University of Toledo, dates back to 1872 when education courses were offered for local teachers. On March 14, 1916, the faculty of the College of Arts and Sciences recommended to the University Board of Directors that the Education Department be reorganized as Teachers College. A few years later the name was changed to the College of Education.

From 1920-1950, the infant college developed the continuity and stability sufficient to identify a mission and to build a constituency necessary for the sustained progress and expansion of the college. Quickly, the college assumed a major leadership role in the improvement of education in Northwest Ohio and Southwest Michigan. A large percentage of alumni became local teachers, superintendents, principals, district supervisors, and specialists in schools; other became college professors.

The 50s to 70s was an era of program growth and enhancement. Some of the major accomplishments of the faculty during this period were to undertake the first doctoral program at The University of Toledo, gain full accreditation by the National Council for the Accreditation of Colleges for Teacher Education, and initiate the honorary societies Kappa Delta Pi and Pi Lambda Theta. By this time, the college offered teacher education programs in most all teaching fields then recognized by the State of Ohio.

In 1979, to recognize the breadth and importance of all programs offered through the College of Education, it was renamed the College of Education and Allied Professions. Subsequently, the college further broadened its scope and opened new degree and program options outside teacher training whose core learnings are found in education professions.

In the last several decades the college has flourished. It has reconstructed its teacher preparation programs and revised most other programs as well as adding a variety of additional program options. The curricula has been approved and commended by the Ohio State Department of Education and has been accredited and commended under the revised standards of the National Council for the Accreditation of Teacher Education.

(continued on inside back cover)

Information for Contributors to the Mid-Western Educational Researcher

The *Mid-Western Educational Researcher* accepts research-based manuscripts that would appeal to a wide range of readers. All materials submitted for publication must conform to the language, style, and format of the *Publication Manual of the American Psychological Association*, 4th ed., 1994 (available from Order Department, American Psychological Association, P.O. Box 2710, Hyattsville, MD 20784).

Four copies of the manuscript should be submitted typed double-spaced (including quotations and references) on 8½ x 11 paper. Only words to be italicized should be underlined. Abbreviations and acronyms should be spelled out when first mentioned. Pages should be numbered consecutively, beginning with the page after the title page. Manuscripts should be less than 20 pages long. An abstract of less than 100 words should accompany the manuscript.

The manuscript will receive blind review from at least two professionals with expertise in the area of the manuscript. The author's name, affiliation, mailing address, telephone number, e-mail address (if available), should appear on the title page only. Efforts will be made to keep the review process to less than four months. The editors reserve the right to make minor changes in order to produce a concise and clear article. The authors will be consulted if any major changes are necessary.

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Kick-off Address

Policy Research in Higher Education: Data, Decisions, Dilemmas, and Disconnect

Edward R. Hines
Illinois State University

Abstract

This address dichotomized academic research and policymaking as two separate, distinct, and often conflicting worlds or cultures. Higher education as a field of study was used as a case example illustrating academic research, and state legislative politics illustrated the world of policymaking. Suggestions were made for finding ways of communicating between the two cultures, and specific recommendations were included.

The topic of this address is the ***disconnect*** between research and policy. Each of the four words in the subtitle of this address has particular relevance for policy researchers. Decisions made by policymakers are based on data, often furnished by researchers. Policymakers are oriented to decision making, and as will be discussed in this Address, policymakers have a fundamental orientation to action, to making decisions. Policymakers often deal with dilemmas that are decision situations involving a choice among competing alternatives. It is up to policymakers to sort out the issues and the complexities and hopefully to make the best decision. Finally, and the topic of this Address, why are the worlds of educational research, and policymaking, so far apart, and what, if anything, should be done about it?

The issue of a disconnect between research and policy, while verified in my 30 years of experience as a policy researcher in higher education—was put to the empirical test as I did the library work in preparing this speech. I quickly saw that the research B policy dichotomy has been an issue of continued interest in the research community, and while it exists, less so in the policy arena.

A National Higher Education Data Base

As a way of beginning, I thought you might be interested in my involvement in policy research. I have always been interested in the intersect between politics and higher education. I came to Illinois 20 years ago from New York where I taught at SUNY-Albany and served on the Governor's Commission on the Future of Higher Education. At Illinois State, I worked with a researcher and later became Editor of a report and a national data base of interstate higher education finance data. This data base tracks legislative financial support to all public colleges and universities in the U.S., and is used by governors, legislators, and policy researchers throughout the nation. I have been Editor of the operation for 15 years. In 1995, we went from a hard-cover monthly research report to a World Wide Web Home Page where the higher education data from the 50 states are located. The Web Address of this data base is da. da. da.

This data base originated at the University of Michigan in 1958. Since that time, we have state reports from the 50 legislatures for each of 40 years. Assuming the average number of data points, or cells, is 30 per state, that is a grand total of 60,000 data points or cells. That is a lot of data!

Let me share with you some observations about legislative support of higher education, then I want to continue with the disconnect between research and policy. My 1st observation is that "so goes the economy, so goes higher education." This observation comes from two decades of working with these data. I have found an ample reservoir of legislative good will for higher education, despite criticism about a lack of accountability in higher education, productivity that is problematic, and lack of tangible outcomes in many instances. In my 15 years working with these data, there have been only three years when higher education really suffered from lack of legislative support. The clear reason for this was struggling state economies. The most recent year this occurred was in 1992 when the aggregate state support of higher education in the nation was ***less*** than it had been the previous year. In 1992, states were reeling from the effects of a national recession and the continued attempts by the federal government to shift policy initiatives to the states, witness health care and welfare reform. When states have adequate resources, measured by the amount of revenue flow from taxes into the state treasury, then higher education is in the position to benefit.

The second most important variable for higher education is not revenue capacity, but, rather, a variable termed "lawmaker willingness." This means the extent to which legislators and the governor are willing to spend money for higher education. In order to answer this question for higher education, you need an understanding of the structure of state government budgets. Briefly, 2/3 of all state budgets are devoted to the following areas of expenditure, in order of priority going from largest to smallest. First, there are public schools that easily are the largest item in state budgets. The second largest item ***used to be*** higher education, but since 1994 it is health care, followed by higher education. In last place are corrections and aid to families with dependent children (welfare). Together, these five areas capture approximately 2/3 of all state budgets.

In the nineties, however, some interesting things have been happening to state budgets. Court decisions, legislative mandates, and other sources of pressure have resulted in four of the five major areas of state government spending being mandated, and, since the most recent wave of public school reform, this now includes K-12 schools. Of the five major areas of spending, only higher education is discretionary. There are no court decisions or legislative mandates requiring legislatures to support higher education at any level of expenditure. Whether or not legislatures support higher education depends completely on their discretion.

People in higher education generally do not realize these aspects of legislative reality. So, therefore, when a university president or college dean goes to a legislative budget hearing and essentially says "You legislators must realize that we need this money, we've always gotten it before from you, and we need it even more this year." This argument is not at all effective. What would be more effective is a higher education representative who goes into the legislature and says "Legislators, we need a million dollars to bring our science laboratories up to standard and if we can do this, we can graduate 15% more science students who are in demand for jobs at corporations x, y, and z." In other words, higher education needs to make its case in legislatures based on mutual benefit, not merely it's own self-interest.

This line of argument leads to my 3d and final point regarding trends in state higher education support. Higher education has entered a period when its future will depend on its ability to spend resources wisely, to reallocate resources to areas of strength and demand, and away from areas of weakness and lack of demand. Terms such as strength and weakness are from strategic planning. They don't have to be judgmental. On the contrary, they can be measured. They include student demand, measured by manpower forecasts, need, and student enrollment. Another major variable is cost, and costs can be calculated using personnel salaries, fringe benefits, administrative overhead, and indirect costs such as building maintenance, lighting, heating, and air conditioning. Two other variables found to be important in strategic planning are centrality and quality. Program centrality means the relationship between the program and the mission of the institution, so a high-cost science or professional program in an institution having no mission to support that kind of program is questionable. Quality, despite its inherently "soft" nature, can be measured by such attributes as contribution to the community, money generated by research contracts and grants, and awards won by faculty and students.

The point of this is the need for higher education, now, to show its worth, to prove its merit and value to its supporters which include state legislators and governors.

The Research B Policy Disconnect

There are scores of examples, in everyday legislative life, illustrating the gap between researchers and policymakers. While it was evident that this disconnect caused problems for specific individuals, I was not sure about the generalizability of the problem. Was it a recognized issue in the higher education research community? In the political arena? What were the consequences of this disconnect, for academic researchers and for policymakers?

A former Presidential Address delivered at the American Educational Research Association shed light on the issue, along with three Presidential Addresses of the Association for the Study of Higher Education. The 1988 AERA Presidential Address by Richard Shavelson was entitled "Contributions of Educational Research to Policy and Practice: Constructing, Challenging, Changing Cognition." One year later, Clif Conrad's ASHE Presidential Address was entitled "Meditations on the Ideology of Inquiry in Higher Education: Exposition, Critique, and Conjecture." Six years more recent, in 1995, Michael Nettles' ASHE Address was entitled "The Emerging National Policy Agenda on Higher Education Assessment: A Wake-Up Call." And, in 1996 Pat Terenzini spoke on "Rediscovering Roots: Public Policy and Higher Education Research."

What do these four presidential addresses, and other literature, tell us about the disconnect, or gap, between the worlds of educational research and policy? As important, what, if anything should we do about it?

The AERA Address by Shavelson focused on what he termed the "mind frames" of educational researchers, policymakers, and practitioners and on the apparent fact that educational research had not fulfilled its role in school improvement (Shavelson, 1988, p. 4). Shavelson explained that sometimes expectations for research are unrealistic. Furthermore, such expectations can be unreasonable when there is a belief that policymakers will use research results to ensure that benefits, such as "good educational outcomes," will accrue to everyone equally and uniformly. Such expectations promise too much. Shavelson offered that more important benefits of educational research were in challenging and changing how policymakers and practitioners think about problems and potential solutions.

In his 1989 ASHE Presidential Address, Conrad criticized the field of higher education for viewing itself more as a discipline than a broad, applied field of study. As such, inquiry in higher education had become oriented to scholarly peers, more than to practitioners and policymakers. A stakeholder-centered model of inquiry, according to Conrad, would reexamine its research agendas and modes of disseminating knowledge. Developing generalized knowledge, rather than narrow, specialized knowledge should be encouraged, and a broader range of research methodologies should be encouraged that go beyond "a traditional positivist paradigm" (Conrad, 1989, p. 209). Acquiring or producing information through extensive descriptive studies tends to be an exercise only in fact gathering.

Conrad recommended that the following types of inquiry be utilized more by higher education:

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- Problem-centered inquiry utilizing interdisciplinary research, such as public policy studies.
- Integrative inquiry using such tools as secondary analysis and meta-analysis
- Interpretive inquiry which attempts to generalize using tools such as qualitative analysis
- Future-centered inquiry where normative scholarship using, for example, philosophical approaches, speculates and idealizes about future scenarios (Conrad, 1989, pp. 206-8).

Two other ASHE Presidential Addresses dealt with the world of policy making. Nettles encouraged higher education leaders to become involved in the public policy process regarding developing new academic standards and assessment of educational progress (1995). Terenzini's ASHE Address was particularly useful because he chastised higher education for becoming preoccupied with "a singular conception of research," thinking of itself as a social science discipline rather than a multidisciplinary, applied field (Terenzini, 1996, p. 7). He claimed that there had developed a "gulf" between higher education research and the policy communities. Higher education researchers increasingly communicate only with themselves; we are publishing material designed more for promotion and tenure, rather than helping policymakers solve real-world problems of practice. Terenzini advocated that the higher education research community should encourage policy-relevant research, open two-way lines of communication between researchers and policymakers, and write for journals of practice and policy, not merely journals emphasizing theory and research complexity.

An even more aggressive posture regarding higher education research was taken by Layzell, who called it "stale, irrelevant, and of little use to policy makers" (Layzell, 1990, p. B1). He claimed that this research focuses excessively on methodology, and the language of research is too technical, esoteric, and filled with jargon. As a result, higher education research tends not to be utilized by policymakers, even in decision making on issues where they need information and advice. Rather than go to researchers, policymakers turn to neighboring states or peer states for advice on what works and what does not.

In an frequently-cited article pertaining to research about higher education, George Keller termed it "unintelligible triviality" (Keller, 1985, p. 7). While he admitted that higher education does not suffer from too little information, the problem is that narrowly-conceived statistics are plentiful, but scholarship and thoughtful commentary are practically non-existent. More recently, Keller asked if higher education research needed revision, and he suggested that there were two prevailing problems with this research (Keller, 1998). First, Keller said that higher education research was dominated by positivist, quantitative approaches. Second, higher education research has neglected policy and planning and, thus, has become less useful to the decision makers who, ironically, have the need for policy research.

Research and Policy: Are the Differences Fundamental?

Next we examine the question of whether there are fundamental differences between higher education research and policymakers' needs.

We turn to an article by a Michigan state legislator who had been a professor at Michigan State University. He zeroed in on language differences between academicians and politicians. He cited an example of a small college asking for legislative support for economic development funds: a request for $150,000 to "hire two new faculty members and one secretary to work with the local business community." A major university, on the other hand, requested $1.5 million to "improve the interface between basic research and private sector high technology initiatives through enhanced technology transfer" (Sederburg, 1989, p. 32). Tongue in cheek, Sederburg hypothesized that the language gap between academia and the legislature increases with the size of the university and the number of deans involved in making budget requests. Higher education faculty, noted Sederburg, value rational argument and the power of ideas. Legislators deal with three dimensions of reality: program substance, comparisons with competing institutions, and politics.

Next, it is noted that some scholars, such as Leslie and Beckham, suggest that more than a research-practice gap, there is really a "dualism between research and practice" (Leslie and Beckham, 1986, p. 126). Further, they said that we need to discover the range of useful knowledge involved in the practical problems of decision making and policy. By uncovering this knowledge, we will identify more precisely the nature of the problems of practice. In so doing, we can examine the extent to which present research methodologies and study designs are a "match" for solving real problems.

In a study of the criteria used by policymakers' in making decisions, the Harvard researcher, Carol Weiss, identified the decision criteria of research quality, action orientation, conformity to user expectations, challenge to the status quo, and practical relevancy (Weiss and Bucuvalas, 1977). Research quality was the most important criterion, and consisted of a cluster of items, such as technical quality, statistical sophistication, objectivity, quantitative data, internal consistency, data support for the recommendations, the comprehensiveness of explanatory variables, generalizability, validity, and addition to knowledge. She also devised what were called truth tests and utility tests. When applying a truth test, policymakers ask "Is the research trustworthy? Can I rely on it? Will it hold up under attack?" The utility test, on the other hand, looks at whether or not the study provides explicit and practical directions on issues that policymakers can take action on, or what could be called an "action orientation."

We come to the question of the difference between researchers' and policymakers' worlds. Shavelson analyzed it as "mind frames" that are shaped by work cultures. He cautioned that"our mind frame does not easily translate into the policymaker's." Researchers' mind frames are cautious, careful, somewhat narrow, risk aversive, comfortable in working alone, and research results are cumulative or multiplicative. Policymakers, on the other hand, are goal driven, more risk taking, and action oriented.

Wirt and Mitchell, writing about the political uses of social research, argued that policy has origins in matters of interest, not truth. Policymakers are called to action, more than to knowledge and understanding. Further, perhaps the greatest single difference between social scientists and policymakers is "their contrasting perspectives of time" (Wirt and Mitchell, 1982, p. 5). Social scientists have comparatively long timelines, they are skeptical, and avoid rushing to judgment. Policymakers deal with diverse, intense, and difficult pressures, but above everything else they must take decisive action.

More than simply a difference in perspective, language, or use of time, other scholars have labeled academia and politics as truly opposite cultures (Leslie and Routh, 1991). As Table 1 shows, the differences between the cultures of academic research and policymaking are striking. Using a broad range of descriptors, one finds literally opposite orientations of the two worlds.

Recognizing the striking differences between academia and policymaking, one would have to conclude that the differences are fundamental. Therefore, what are the consequences of these differences for each world?

The Consequences of Living in Different Worlds

The initial issue for consideration, regarding the consequences of academic research and policymakers living in different worlds, is the extent to which each needs the other. If the two cultures have no need for each other, and if there are no consequences of operating in distinctly different, or even incompatible worlds, then the differences have little consequence.

Clearly, academic research needs policymakers if only for financial support. At both federal and state levels, the funding of scientific research, academic programs, and research centers and institutes is dependent on the willingness of lawmakers to provide public money. Even in private institutions, public money funds a significant amount of research. It is difficult to imagine academic research being able to survive without legislators' approval of appropriations bills that allocate funds to institutions, programs, and research centers.

Do policymakers need academic researchers? Less so than the other way around, but one way to identify the extent to which policymakers need academic research is to determine the value that policymakers place on the information they receive from researchers. In this area, academic research comes up short. One study examined the relative influence of different groups on policymakers. Of 18 groups included for consideration, educational researchers ranked 3rd from the bottom (Marshall, Mitchell, and Wirt, 1986), but not quite as low as textbook publishers. Most other groups ranked higher as sources of information, and these included lay groups and noneducator interest groups. When policymakers need information, they turn to other states, to colleague legislators or legislative staff, and even to experienced lobbyists.

Given that policymakers can use the products of educational research, although they seem to turn to sources other than academic researchers, and given that researchers need policymakers for financial support, where might be the common ground for establishing some kind of working relationship?

Searching for Common Ground

Perhaps the best place to begin to seek common ground is with the issues, themselves. Scholars have explained that academic research tends to be crafted on carefully controlled topics of limited scope, and that the methodology of research is given emphasis. Academic researchers might begin by seeking a different balance between topic and method. The topics might be reconceptualized into issues of broader import, even if secondary analyses and meta-analysis techniques are used in order to elevate topics to a higher level of breadth of scope. At the same time, research methodologies might receive a bit less attention. Therefore, the means would be de-emphasized while the ends would receive greater attention.

Next, virtually all of those who have commented on the gulf between the worlds of academic research and policy have identified language as a problem. Researchers communicate in complex, technical language that makes excessive use of statistics. Policymakers, and more broadly the lay public, have difficulty understanding such language. Researchers might try to write for essentially a lay audience. Language should be made more simple by deleting highly technical terms and statistics not readily understood by a non-technical audience.

Academicians might utilize the device of a précis or executive summary that could be used for lay and policy audiences. Supportive "technical reports" could be included as detailed background.

Leslie and Routh cautioned that the differences between these two cultures likely will not be eliminated or even overcome, except by taking small steps that limit and structure the exchanges between the two sides. Examples would include creating a unit, such as a policy research unit in a university or state department, that could work with both academics and policymakers and help bridge the gap between the two. Another example would be to sponsor an individual from one culture who could be assigned a temporary position in the other world, then return and help with communications to bridge the gap between the cultures. One friend of mine, a university research professor, was assigned a two-year visiting scholar position in a state education department in the state capital. During her assignment, she worked on policy papers for the state department, and after

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returning to the university she helped establish communications links between the state department and the legislature. The "other" environment might be scanned by identifying information sources used by those in the other environment and becoming familiar with their content. Still other suggestions are to keep relationships less formal and to encourage collaboration between researchers and policy staff.

Summary

In summary, what about the future? What recommendations might be made in regard to the two worlds of academic research and policymaking? First, I believe that it is productive simply to recognize that academic researchers and policymakers live and work in essentially two different, not totally compatible, worlds.

Second, does there need to be any rapproachement between the two worlds? Academic researchers need policymakers financial support, and the outcomes of academic research stand to benefit the policy world. The problems are that the languages of the two worlds, the operating assumptions, and communications vehicles and styles are quite different. Academic researchers, it seems to me, might begin to think about ways to adjust their communications modes so policymakers, as a targeted audience, will perhaps be more receptive to the researchers' messages and communication modes. Policymakers will come into line if their own self-interests are served by research results.

Third, and finally, as former AERA President Richard Shavelson told us, researchers can help the world of practice not only by their research results, but also by the ways in which researchers think about problems and speculate about potential solutions. This is the promise of the world of academic research, not only the hope that research results will actually solve the problems of the real world, but also in framing questions, reflecting on problems, and pointing toward solutions. And this promise more than justifies the time that you and I might spend reflecting on this issue and the effort that we put into bridging the gap and reducing the disconnect between academic research and policy.

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Keynote Address

Western Governors University
University of the Future

Robert C. Albrecht
Western Governors University

Abstract

Western Governors University was initiated by Western governors in response to perceived needs in the marketplace and as a supplement to the traditional institutions. WGU offers competency-based credentials at a distance. Students are required to sit for assessments that measure their skills and competencies. The curriculum for each degree is defined by competencies rather than courses. The programs are particularly suited to non-traditional students who are unable to attend residential institutions.

The background to the initiation and development of Western Governors University involves changes in post-secondary education that are occurring in the United States and elsewhere. The rapid population growth results in half of the world's population being under 20 years of age. As a consequence, a large campus must open every week to accommodate the growing demand. As a primary provider of higher education, that demand becomes part of the environment for higher education in the U.S.

Yet the cost of higher education in the United States continues to escalate: the cost has increased by one-third in the past fifteen years. Hence a structure which was intended to serve large portions of the public continues to cost more than some segments can afford. The rapid growth in population will be less served rather than more because of these costs. The model for higher education simply is not scalable to the demands placed on it by the population increases.

The need for education increases, and the number of providers grows to meet that need. The "education industry," as some call it, has become financially attractive, and publishers, software companies, and other commercial providers have entered the competition with schools and colleges. Perpetual learning, workplace needs, just-in-time learning and certificates rather than degrees have become parts of the learning demands. This increased demand for education and training has also lead institutions to increase their distance learning activities. Most institutions have distance learning offerings; however, all but a quarter of them offer fewer than 25 courses, according to a recent government survey. With the new demand for distance learning, 75% of all institutions intend to expand those offerings.

These developments occur at a time when the economy and the society are shifting from the industrial age to the knowledge age. For education, the industrial age is marked by residential campuses running on the familiar academic calendar, offering degrees from college and universities in which the curriculum is controlled by full-time faculty members. In the knowledge age, learning takes place at the workplace, in the home or on the campus. The content will be packaged in certificates as well as degrees; the providers will include publishers and other corporate providers, as well as colleges and universities, and the consumer will determine many of the characteristics of the time, place, and form of the educational process.

Western Governors University was initiated to meet the demands proceeding from these changes. Fifteen governors of the Western Governors Association met in 1995 and 1996 to plan a university that would have the following characteristics:

Market-oriented
Independent
Client-centered
Degree-granting
Accredited
Distributed faculty
High quality
Cost effective
Competency-based
Quickly initiated

Such an institution had seldom been initiated in the United States. Incorporated in 1997, WGU actually opened its (virtual) doors in September, 1998. The University continues to receive support from the governors; eighteen states now support WGU. The governors each provided $100,000 as one-time grants, and they serve as members of Western Governors University. Each further agreed to establish at least one local center in each State, to work to overcome barriers to distance learning and to support fund raising for this private institution. Strong international interest has also emerged. Memoranda of understanding have been signed with agencies in a number of countries, including Canada, Mexico, Japan, China, Armenia, and the United Kingdom.

The institution which was established by the governors has been realized along the lines of the vision with which it began. The degrees are competency-based; the content is that taught in the provider institutions. As a degree granting institution, WGU must have accreditation. That process began with the establishment of IRAC (the Inter-regional Accrediting Commission), an organization created by four of the regional accrediting agencies—North Central, Northwest, the Western Association of Senior Colleges and the Western Association of Junior Colleges. WGU was granted "eligibility" status in the spring of 1998 and seeks "candidacy." The accrediting process is essentially that used for traditional institutions. The members of IRAC are chosen from the commissions of their regional accrediting agencies; the process includes an institutional self-study and a site visit by a team chosen by the accreditors. WGU, however non-traditional it may be in some respects, will award degrees equivalent to those offered by traditional institutions.

WGU credentials—certificates and degrees—are based on competencies rather than credits. Rather than completing a set number of credit hours which define the curriculum or the degree, the student must demonstrate through third party assessment (i.e., not the assessment of the faculty member who provides the content) the competencies which make up the curriculum. How is the curriculum established? Once a discipline is chosen for the development of a credential, a faculty committee, made up of faculty members on contract from other institutions, is appointed to define the standards for the degree. Depending upon the nature of the certification, these standards are drawn from industry or academic sources. Once these are defined or identified, the committee, called a Program Council, writes the competencies that students must demonstrate to meet the standards.

WGU students can take assessments to demonstrate their possession of those competencies whenever they are ready. They may have acquired the competencies through past course work or through self study; or they may take courses—residential or distributed—to prepare for the assessment. Once the student has demonstrated competencies in all of the domains (a domain is a collection of competencies in an area such as mathematics) required, a credential is awarded to the student. The completion of domains is analogous to the completion of courses; progress towards a degree is measured by "passing" the assessments—similar to "passing" courses.

In the academic structure of the University, the faculty functions are unbundled: that is, the faculty who provide content through their home institutions are generally not the faculty who build the curriculum. The assessments which measure student competencies are created by companies such as ACT or the Educational Testing Service.. The advisor/mentors who are the critical guides to all degree-seeking students are faculty qualified people, and they do not teach courses for WGU (the University is not a content provider) and are not involved in the assessment process.

The initial degree offerings of the University include an Associate of Arts and an Associate of Applied Science in Electronic Manufacturing Technology. The former degree is a typical AA transfer degree based on similar degrees in two and four year institutions. The structure of the WGU degree requires the student to demonstrate competencies in three areas:

Pre-requisite skills—communication, mathematics, research and basic work-related skills

Cross disciplinary skills—critical thinking, problem solving, information gathering and evaluation; all applied in the context of natural sciences, social sciences and the humanities

Distribution component—natural sciences, physical sciences, humanities, history

Twelve other credentials are now being developed in the areas of information technology, allied health, business and education. These will be available to students during the coming months.

Students interested in the WGU credentials can access the University through its Smart Catalog on the web at www@wgu.edu. After browsing the web site and learning more about the University, its structure and its offerings, students may decide to apply for admission. At that time they are assigned an advisor/mentor who works with them to define their academic and career goals, to assess their experience as it applies to those goals, to evaluate their readiness to take the assessments in their chosen curriculum , and to identify sources of content (such as courses) they may need to increase their readiness to take assessments. If distance learning offerings seem appropriate, the advisor/mentor will guide the student through the offerings of provider institutions that are listed in the Smart Catalog. The advisor/mentor will also aid the student in understanding the concepts of competencies and competency-based credentials.

Western Governors University does offer credentials equivalent to that of other institutions. However, the student market it serves tend to differ from those of the traditional institution. The competency-based degrees and the assessment process are especially suited to non-traditional students who have been in the work force. Many of those people find that their educational experience is limiting their ability to achieve academic and career objectives.

Western Governors University, then, is a competency-based, degree granting institution of higher education. A distance learning university especially designed to serve mid-career students, it will soon offer a spectrum of certificates and degrees in fields such as information technology, education, allied health and business. While working in partnership with traditional institutions and other providers, WGU seeks to reach students who often cannot take advantage of the offerings of many colleges and universities. The credentials it offers are particularly addressed to those students.

The knowledge age presents new patterns of learning and credentialing and offers many new learning opportunities. While the typical undergraduate student may still attend the residential institutions, many more learners will seek education from home, from the workplace, from learning centers. Furthermore, they will look for certificates and other credentials that can be earned through technology. Western Governors University will respond to these and other so-called non-traditional educational degrees.

Luncheon Address

Academic Careers in the Twenty First Century: New Options for Faculty

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Abstract

The faculty career is changing in response to external and internal pressures. Public calls for productivity and accountability, student demands for access and high quality education, faculty workloads, tenure criteria and processes, and the desire for balance in personal and professional lives are all contributing to change. Today less than 50% of all faculty members occupy tenure-track positions; 26% of full-time faculty occupy nontenurable positions. This paper examines these and other pressures for institutional change, describes current faculty demographics, and explores possible institutional responses including modifications to traditional tenure systems and faculty career alternatives outside tenure.

Here I am, invited to talk about changes in the faculty career. I sure am an expert on change right now because I am in the midst of changing careers myself! After twenty-five years as an administrator with occasional research and teaching assignments, I am now a full-time professor in an academic department for the first time. I should be listening to you tell me how the system works rather than speaking to you about how to change it! As I learn first hand about what faculty do: figure out how to structure their time to accomplish **everything**, search for parking, beg, borrow and occasionally steal clerical support, and compete for carefully guarded and sacred budget allocations, I am very personally aware of how difficult career change can be.

But, change is a reality we all face. So with heightened personal empathy and understanding garnered over the last several months, I will spend my time today talking about why and how I see the faculty career changing. I do this primarily from the perspective of my own research including my recent affiliation with the American Association for Higher Education's New Pathways Project which has explored many facets of faculty careers and and employment arrangements and published 14 different working papers.

Today I want to talk about three key points:

- There are too many public and institutional reasons to continue the same tenure system promulgated by the AAUP in 1940.
- The demographics of the faculty are already changing. The question is whether we are going to manage this change or just let it happen.
- The task before us all—administrators and faculty within institutions—is to explore modifications to tenure and alternatives outside tenure that could better meet the needs of faculty members and their colleges and universities.

Before we begin, lets make sure we share the same definition of tenure. As promulgated by the American Association of University Professors in their 1940 "Statement of Principles on Academic Freedom and Tenure" (1990), tenure was for the purpose of guaranteeing academic freedom and a reasonable amount of economic security. The tenure system, as defined by the AAUP, was applied to everyone, and it worked fine while the higher education establishment was small and relatively homogeneous. And, as higher education gained in public esteem and prospered financially during the 1950's, 60's and 70's (the era in which today's senior faculty entered the career), the academic profession was attractive to capable and ambitious faculty members (Bowen and Schuster, 1986). A huge demand for faculty gave a freshly recruited cohort of professors the leverage to negotiate their salaries, workloads and rewards. Since the early 1970's, however, the appeal of the academic profession has diminished along with the economic flexibility to offer faculty attractive salaries and working conditions. At the same time, the higher education enterprise has grown enormously and diversified. While the "one size fits all" tenure system, as defined in the 1940 AAUP Statement, is still viewed by some as the model for all institutions, it is no longer accepted by the public or meets the needs of individual colleges and universities.

The question now is how to retain the key features of tenure, academic freedom and some measure of job security, when higher education itself has changed so dramatically since 1940.

The Current Context

Within institutions tenure policies are undergoing changes brought about by legitimate and pervasive external and internal concerns.

External Concerns

The public widely views tenure as a shelter for underproductive and overcompensated academics, and tenure's role in protecting academic freedom with concomitant economic security is poorly understood (Gappa and Leslie, 1997). State legislators and others are insisting on greater accountability and measurement of faculty productivity through workload studies and requirements or post-tenure reviews because of a perceived lack of fit between faculty priorities and institutional missions (Heydinger and Simsek, 1992). The guarantee of life-long employment resulting from the elimination of the mandatory retirement age is viewed as an anomaly.

Demand for access. Demand for access is escalating while resources are declining. The public is saying we are the customers and we want our children taught by professors. We want high quality undergraduate education and applied research and service aimed at meeting society's needs (Gappa and Leslie, 1997).

Competition. Today, the entertainment industry is a primary supplier of education for our students. A steady diet of engaging, fast-paced information via television and the world wide web has given students and their parents implicit criteria for judging the presentation of material (Heydinger and Simsek, 1992). Students now want learning that is customized—high quality, just in time, life-long. Traditional approaches to teaching and learning are being challenged successfully by corporate entities and for profit educational institutions such as the University of Phoenix.

Changing work force. Employees no longer expect life-long employment with one organization or trust major decisions affecting their careers to a "parent" organization. Instead, working under a new covenant, employers give individuals opportunities to enhance their employability in exchange for increased productivity and some degree of commitment to company purpose for as long as the employee works there (Waterman, Waterman and Collard, 1994). This new covenant is in sharp contrast to academic tenure. In addition, employees today are generally members of family units with more than one worker. They seek work-life balance in their careers to meet their dual responsibilities.

Internal Context

Internal concerns about tenure are equally pervasive and legitimate.

Institutional flexibility. A guarantee of life-long employment can seriously erode institutional flexibility while a rewards structure that seeks to emulate the research paradigm no matter what the institutions' mission or customers' desires raises serious questions about whether faculty are citizens of their disciplines or citizens of their institutions. Boyer's works, *Scholarship Reconsidered* (Boyer, 1990) and *Scholarship Assessed* (Glassick, Huber and Maeroff, 1997) are serving as important change agents to realign faculty priorities and allow more paths for faculty achievement and rewards.

The nature of faculty work. Contrary to popular belief, faculty work hard. A survey of professors at a large technical university found that the median workweek is 60 hours and 10% of faculty spend 75 hours a week at their jobs (Bailyn, 1993). As faculty we love our jobs because of the autonomy and independence. But we pay a price for them. Our work is fragmented into multiple demands for our time and high expectations for performance. Students expect consistent excellent faculty performance in the classroom, and faculty cannot easily find replacements when they are sick or have emergencies. As good academic citizens, faculty are expected to serve on committees and meet other departmental, campus and professional service obligations. Simultaneously, they must produce research and scholarly work. Yet the mental requirements for research (concentration, uninterrupted periods of time, and meeting productivity schedules for grants or publications) conflict with the expectations faculty face for being available to students and performing various service functions (Gappa and MacDermid 1997; Bailyn, 1993).

The bottom line is that there is not enough time to do everything that needs to be done. Bailyn calls the work psychologically difficult:

> The lack of ability to limit work, the tendency to compare oneself primarily to the exceptional giants in one's field, and the high incidence of overload, make it particularly difficult for academics to find a satisfactory integration of work with private life…It is the unbounded nature of the academic career that is the heart of the problem. Time is critical for professors because there is not enough of it to do all the things their job requires: teaching, research and institutional and professional service. It is therefore impossible for faculty to protect other aspects of their lives (1993, pp. 51-52).

The career path to tenure. For probationary faculty, the clock is always ticking towards an arbitrary seven-year deadline. Tenure track faculty lack control over their time, and the pressure to meet tenure criteria requires them to pursue research and scholarship that can result in sufficient publications within the allotted time frame.

Experiences during the probationary period are influenced by the culture of the institution and department. Colleges and universities are decentralized entities. Depending on the institution, the culture can be institutionally based, department based, or both! Some departments foster collegiality and pride themselves on mentoring, fairness, continuous feedback, and creating trust. Others are the reverse—the feedback is inconsistent, messages about criteria are unclear or changing, and the climate is competitive, political or schismatic. Changes in committee composition or department heads can lead to changes in departmental environments and discontinuity in feedback and expectations midway through probation.

Work-life balance. Increasingly men and women faculty are seeking a more realistic balance between work and life (Gappa and MacDermid, 1997). This is particularly difficult for faculty on tenure track—and these faculty, both men and women tend to be from more diverse backgrounds and have different expectations. In a decentralized institution, the level of use of work-family programs is, in part, dependent on the perceived career penalties. The lack of widespread acceptance and use of work-life programs by early career faculty and the lack of understanding of work-family conflicts by departments can have devastating effects.

Use of part-time, nontenurable appointments. The tenure system exists, in part, because part-timers provide a cheap, plentiful source of labor that does the work tenured faculty do not want to do. But the rising use of part-time faculty to deliver a larger and larger portion of undergraduate education only sharpens the questions the public is asking and raises questions about whether the academic work force may have become too fragmented. Do differences in status now split faculty away from one another and from the idea of a community of scholars (Gappa and Leslie, 1997)?

Preserving academic freedom. Academic freedom is critical to higher education. It is the backbone of the tenure system. But, it is difficult to defend tenure for the purpose of preserving academic freedom when only about 34% of all faculty (on a head count basis) are tenured. Some institutions extend academic freedom to members of the professoriate as they define that group (Gappa, 1996), and some scholars have proposed ways of preserving academic freedom short of awarding tenure (Byrne, 1997).

Faculty Demographics

Now we will look at some faculty demographics to illustrate the extent of changes in the faculty career. These data are head count, not full-time faculty equivalents, and they are inclusive of all institutional types. They are taken from the 1993 National Study of Postsecondary Faculty which includes data by institutional type and discipline for those of you who want to examine these demographics in more detail (Zimbler, 1994; NEA, 1995; Finkelstein et al., 1995; Leslie, 1995; Kirshstein et al., 1996).

- 42% of all faculty are part-time.
- 74% of all full-time faculty are tenured or on tenure track.
- 64% of full-time faculty hired in the last five years are tenurable.
- 26% of full-timers are nontenurable, either because their institutions do not grant tenure or because their appointments specifically state they are nontenurable.

Therefore, fewer than 50% of all faculty are tenurable.

- 60% of men faculty, compared with 28% of women faculty, have tenure.
- Medical schools use the most full-time nontenurable faculty. By 1981, 75% of U. S. medical schools had nontenurable faculty tracks.

Since part-timers have doubled in numbers in the past two decades and constitute such a large share of the total faculty (42%) (Leslie, 1998), we'll take a quick look at their characteristics:

- Only 4% are tenured or tenure track.
- 44% are in public two-year colleges, 6% are in liberal arts colleges, 22% are in comprehensive regional institutions, 11% are in doctoral universities, and 11% are in research universities. However, if the work of teaching assistants is added to that of part-timers in research universities, it would probably show that proportionately as many undergraduates are taught by nontenurable faculty at research institutions as at other institutions (Leslie, 1995, 1998).
- 77% are employed elsewhere; two-thirds in full-time positions. The part-timers whose primary jobs are outside academe are not interested in full-time tenurable positions. We labeled them specialists, experts and professionals in *The Invisible Faculty* (Gappa and Leslie, 1993).
- Only 13% are aspiring academics, teaching at several campuses simultaneously.
- 54% have worked at their institution for 4 or more years; 21% for more than 10 years.

These data challenge commonly held myths about part-timers. Part-time faculty constitute a valuable resource to institutions; they are generally well-qualified for the teaching assignments they hold; and they are not a transient, temporary workforce. Part-timers themselves do not cause quality problems. Quality issues stem from their overuse in some departments and from policies and practices governing their employment. These are institutional problems that can be fixed!

Modifications to Tenure

Now let's look at how the current tenure system might be modified to make faculty careers more flexible and attractive for individuals and institutions. As we probe this sensitive terrain, it is important to remember that changes in the academic career will be institution specific, and require faculty involvement and agreement!

Changes in the Probationary Period

As I have mentioned, the probationary period is characterized by high pressure, lack of control over time, ambiguous and changing criteria, mysterious processes, subtle pressures to conform to preferences and prejudices of senior faculty, and work-life conflicts. These sources of discontent on the part of early career faculty surfaced over and over again in structured interviews with new faculty and graduate students across states and sectors of higher education. Various researchers (Rice, 1996; Tierney and Bensimon, 1996; Trower, 1996) all reached the conclusion that new tenure track faculty are largely an unhappy lot.

The pre-tenure review process needs to be revamped (Rice, Chait and Gappa, 1997). Measures that could increase flexibility and reduce inconsistencies and randomness junior faculty ascribe to the tenure process are: making the length of the probationary period more flexible (seven years no longer meets the needs of some probationary faculty), better documentation of teaching and public service, clarity and consistency in tenure criteria and processes, "tenure-by-objectives" performance contracts, regular and timely feedback, continuity in committee membership and systematic mentoring.

Changes in the Time Base and Duration of Tenure

Part-time tenure. Why should tenure be linked to full-time status? Flexibility in the time base of a tenurable position would open up the traditional faculty career to many individuals seeking to balance work-life conflicts or wanting to pursue other careers and interests concurrently with a tenured appointment.

Instant tenure. Some institutions, such as Harvard University, grant tenure at the time of hire and only at the full professor rank. Within the Harvard Graduate School of Education there also must be sufficient funding to support the position, prior authorization for a tenured slot by the senior faculty, and a national search (Gappa, 1996). This policy ensures the tenuring of only senior people in areas of clearly established need.

Limit the tenure guarantee to a fixed period of time. With the elimination of mandatory retirement some are questioning whether or not tenure should be a life-long guarantee and are suggesting that a fixed term with other incentives may be more attractive to faculty.

Promoting Continuing Productivity

Outspoken critics cite tenure as the source of most productivity problems since there is no flexibility to remove unproductive people. What might promote increased productivity?

Redefining what constitutes base salary. Guaranteeing last year's salary does not promote continued productivity and affects institutional flexibility. Heydinger and Simsek (1992) recommend setting the base salary at a threshold level, for example that of a newly hired assistant professor. The remainder of the salary would be earned each year by achieving specific accomplishments based upon agreed upon objectives, and bonuses could be given for very high levels of attainment.

Post-tenure review. Well-conceived post-tenure reviews afford opportunities to enhance faculty development, promote different career emphases, match faculty career goals and institutional priorities, and clarify performance expectations. On the downside, they consume a great deal of time and can convey a punitive image while still not guaranteeing improved performance (Licata and Morreale, 1997).

Assisting faculty with the transition to retirement. There are few incentives to encourage faculty to consider total or phased retirement or other career options without coherent, coordinated incentive programs and retirement options (Rice, Chait and Gappa, 1997). Incentive programs and options can guide faculty toward new roles and careers and smooth what can be very difficult personal transitions.

Alternatives Outside Tenure

More than 50% of faculty members are not in tenurable positions. Twenty-six percent of full-time faculty are outside the tenure system. Whether or not a particular appointment is tenurable is becoming less important to many of these faculty who are disenchanted with the rigidities of tenure and pleased with the flexibility provided by a variety of career paths.

Full-time nontenurable appointments. In professional schools of medicine, health sciences, business, law and education (and increasingly in other disciplines) the use of full-time nontenurable appointments is expanding (Gappa, 1996). These positions are characterized by: well-defined career tracks, appointment and review systems similar to tenure-track, satisfactory or comparable compensation packages, support and status within departments, membership in the professoriate and inclusion within the scope of academic freedom policies, and sufficient job security.

Professional and disciplinary cultures attach legitimacy to these alternative career tracks because clinical and research skills are so highly valued. Full-time nontenurable faculty are treated considerably better than part-timers for the most part. Faculty occupying nontenurable positions as clinicians, professors of practice, distinguished lecturers or research professors are, by and large, satisfied with their status (though there are important differences between junior and senior faculty).

Renewable Multi-Year Appointments. Part- and full-time faculty in nontenurable positions seek some job security. However, these faculty often describe tenure versus nontenure-track status as a lifestyle choice, a trade-off between the short term risk of being denied tenure and the longer term risk of nonrenewal of multi-year appointments (Gappa 1996). Most full-time nontenurable faculty have alternatives outside academe; most part-timers' primary jobs are outside academe. Many of these faculty see five-year appointments as sufficient job security.

Possible Conversion to Tenure Track Status. The University of Nebraska Medical Center appoints all new faculty to a Health Professions Appointment (HPA). These are contract appointments for up to five years, renewable indefinitely. Faculty may apply for tenure at any time, but they do not need to do so to remain employed (Trower, 1996). If they are denied tenure they resume their HPA appointment and can reapply later. A survey of the faculty showed that they perceive the new HPA system as having a positive

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effect on recruitment and as preserving traditional academic values while adopting to the needs of a more diverse faculty (Wigton and Waldman, 1993).

Fair employment for part-timers. Different and mutually exclusive employment systems in the academic profession can lead to conflict rather than collegiality. The more practical alternative is to integrate part-timers into an academic work force characterized by a shared community of interest in building high-quality programs (Gappa and Leslie, 1997). The concept of one faculty should replace the current bifurcated system. To achieve this, institutions must create and support a set of employment conditions that will attract rather than exploit a diverse and highly capable part-time work force.

Three key employment conditions are essential to achieve an attractive work environment for part-timers (Gappa and Leslie, 1993). First, institutions should decide what kinds of faculty are needed to do what kinds of work and select members of the faculty—regardless of full- or part-time status—because they have the qualifications, experience and motivation to provide the education the institution seeks for its students. This approach to faculty staffing would avoid unplanned, out-of-control use of part-timers.

Second, part-timers should be considered regular members of the faculty. Institutional employment policies and practices for part-timers must ensure that they are treated fairly and consistently, given the tools they need to do their jobs, and offered opportunities for career advancement and rewards for excellent performance. Practices such as last minute hiring, semester-by-semester appointments, and breaking continuity of employment to avoid claims of de facto tenure are unnecessary and divisive. A range of employment choices—from tenure or some other measure of job security for some to truly casual and intermittent employment for others—would benefit individuals and the institutions that seek to retain them.

Third, part-timers must be oriented and integrated into their departments and institutions as fully participating members of the faculty. They should be included in faculty development programs and opportunities and consulted on decisions that affect them. Recognition and rewards for all faculty should be based on performance as individuals not on status (Gappa and Leslie 1997).

Conclusion

In conclusion, let's go back to the three key points I made at the opening.

- **There is going to continue to be tenure.**

  There are simply too many internal and external pressures—political, economic, professional and personal—to continue with business as usual. We need to focus on reforming the current system to make it better rather than on debating whether or not to abolish tenure.

- **The demographics of the faculty are already changing.**
- **The task before all of us, faculty and administrators within institutions, is to find ways to modify the tenure system and open up faculty career options outside tenure to better meet the needs of faculty and their colleges and universities.**

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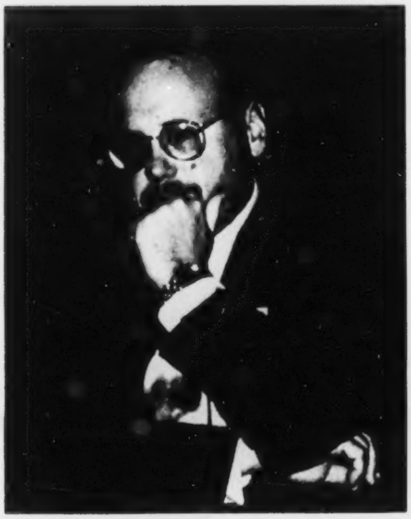
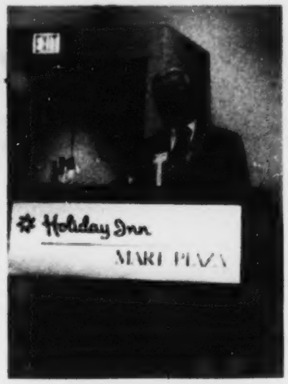
Robert C. Albrecht
Western Governors University



Kim K. Metcalf
Indiana University



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Edward R. Hines
Illinois State University

Judith M. Gappa
Purdue University

Mid-Western Educational Research Association

1999 Annual Meeting Call for Proposals

PROPOSAL DEADLINE: APRIL 16, 1999

October 13 - 16, 1999
Holiday Inn Mart Plaza, Chicago, IL

E. Jane Williams, Program Chair
http://tierlab.ilstu.edu/MWERA

The 1999 Annual Meeting of the Mid-Western Educational Research Association (MWERA) will return to Chicago with an exciting program of invited speakers, focused workshops, peer-reviewed papers presented in a variety of session formats, and activities for participants and their families. The 1999 program will feature speakers of interest to anyone involved in education, with talks and follow-up small-group discussions that are sure to engage and energize. Workshops will be scheduled throughout the four-day meeting, allowing attendees to participate in a wide range of focused, longer-term sessions on a variety of interesting topics. Peer-reviewed papers continue to form the backbone of the 1999 conference, with authors/presenters encouraged to consider a variety of presentation formats: traditional *Paper Presentation* (3-5 papers per session with a Session Chair and a Session Discussant), *Roundtable Discussion/Poster* (for heightened presenter-attendee interaction), *Symposium* (focusing on specific topics from a variety of perspectives), *Workshop* (longer-term focused work on a topic of interest), or *Alternative Format* (with a range of different time lengths and interactive activities).This year's meeting returns to Chicago's Holiday Inn Mart Plaza featuring spacious, comfortable guest rooms, excellent meeting facilities, an indoor pool and exercise room, and many shops and restaurants within a short, safe walk of the hotel. Chicago's museums, planetarium and aquarium, theater district, and lively night life are also just minutes from our central hotel location!

Please accept this invitation to participate in the 1999 Annual Meeting!

The Mid-Western Educational Research Association offers scholars and practitioners, researchers and instructors, and educators from all levels and perspectives an opportunity to share ideas with others in a supportive environment of collaboration. The MWERA meeting is where people from all over North America come to hear the latest in educational thought and progress, and to make new contacts and renew existing acquaintances, in a spirit of professional friendship and collegiality!

General Information

The 1999 MWERA Annual Meeting will be held **Wednesday, October 13 through Saturday, October 16**, at the Holiday Inn Mart Plaza in Chicago, Illinois. The program will consist primarily of presentations, selected through a peer review process, by divisional program chairpersons. In addition, there will be invited speakers and symposia, panel discussions, special sessions for graduate students and new faculty, a luncheon and other social events open to all attendees.

Proposals may be submitted either on paper, or electronically over the World Wide Web. All proposals submitted on paper must be sent only to the Program Chair at the address given below, and must follow the *Guidelines for Submitting a Proposal* in this booklet. Questions about a proposal or the meeting, whether submitted on paper or electronically, should also be directed to the Program Chair:

Dr. E. Jane Williams
MWERA-99 Program Chair
1929 Kenny Road, Suite 100
Ohio State University
Columbus, OH 43210

Office: (614) 292-4520
e-mail: williams.483@osu.edu

Electronic proposals must be submitted using the form available on the meeting Web site. Proposals e-mailed to the Program Chair will not be processed. Further, each proposal should only be submitted once in one format, electronic or paper. Specific instructions for electronic submission can be found at the meeting web site:

http://tierlab.ilstu.edu/MWERA

Any educational professional may submit a proposal for MWERA-99, whether or not that person is currently a member of MWERA. *All Annual Meeting presenters must be members in good standing of MWERA (non-members must join MWERA upon notification of proposal acceptance).* To promote broader participation in the program no one person should appear as a presenter on more than three proposals.

All proposals, regardless of submission format (electronic or paper), must be received by the Program Chair no later than the deadline of **April 16, 1999**. All proposals will then be sent to the appropriate Division Chair, each of whom coordinate a number of volunteers in a system of blind (without author identification) review. Appropriate criteria, depending on the format and type of scholarly work being presented, have been developed and are used for the review process. These criteria include: (a) topic (originality, choice of problem, importance of issues); (b) relevance of topic to the Division and MWERA membership; (c) contribution to research and education; (d) framework (theoretical/conceptual/practical, rationale, literature review, grounding); (e) analyses and interpretations (significance, implications, relationship of conclusions to findings, generalizability or usefulness); and (f) overall written proposal quality (clarity of writing, logic, and organization).

Papers presented at MWERA are expected to present original scholarship, conducted by the author(s), which has not been previously presented at any other meeting or published in any journal. Further, it is a violation of MWERA policy to promote commercially available products or services (except as Exhibits) which go beyond the limits of appropriate scholarly/scientific communication. Individuals who wish to display educationally related products or services are encouraged to contact Dr. Sharon McNeely, Assistant Program Chair for Exhibits, P. O. Box 34421, Chicago, Illinois 60634, (913) 794-2788.

All persons presenting at the 1999 Annual Meeting are expected to register for the full meeting. All sessions listed in the program will be open to any registered meeting participant; however, enrollment may be limited, and a small additional fee required, for some Workshop sessions. Tickets for the Friday luncheon and speaker are available to all pre-registrants. *Ticket availability is not guaranteed for late and on-site registrants.* Registration materials for the 1999 Annual Meeting will be published in the *Mid-Western Educational Researcher*, on the Web site, and can be obtained by contacting the Program Chair.

Presenters whose papers have been accepted to a session with a Session Chair and/or Session Discussant are responsible for submitting a completed version of their conference paper to the Session Chair and Discussant no later than September 1, 1999. *Papers not available to the Session Chair and Session Discussant may be dropped from the program.* Presenters must also provide complete copies of their papers (or detailed handouts) to attendees at their sessions. Overhead projectors and screens will be provided by MWERA in most presentation rooms. Presenters needing additional A/V equipment are responsible for arranging such with the hotel at the presenter's own additional expense.

MWERA reserves the right to reproduce and distribute summaries and abstracts of all accepted proposals, including making such works available in a printed Program Abstract, through the meeting's World Wide Web site, and in press releases promoting the Annual Meeting and the organization. *As a condition of acceptance all authors of papers accepted to the 1999 Annual Meeting explicitly grant MWERA the right to reproduce their work's summary and/or abstract in these ways.* Such limited distribution does not preclude any subsequent publication of the work by the author(s).

Authors of accepted proposals assume the ethical and professional responsibility to appear at the Annual Meeting and to participate in their presentation or assigned session. When circumstances preclude the author(s) from doing so, it is the responsibility of the author to arrange a suitable substitute and to notify the Program Chair in advance.

Divisions

A - Administration and Leadership
This division is concerned with research, theory, development, and the improvement of practice in the organization and administration of education. The Sr. Chair of Division A is James K. Walter from Texas A&M University - Corpus Christi, and the Jr. Chair is George J. Petersen from Southwest Missouri State University.

B - Curriculum Studies
This division is concerned with curriculum and instructional practice, theory, and research. The Sr. Chair of Division B is Nancy G. Saunders from Indiana Wesleyan University, and the Jr. Chair is Brad Oliver from Ball State University.

C - Learning and Instruction
This division is concerned with theory and research on human abilities, learning styles, individual differences, problem solving, and other cognitive factors. The Sr. Chair of Division C is James W. Reineke from Winona State University, and the Jr. Chair is Cynthia Campbell from Northern Illinois University.

D - Measurement and Research Methodology
This division is concerned with measurement, statistical methods, and research design applied to educational research. The Sr. Chair of Division D is Gene Kramer from the American Dental Association–Chicago, and the Jr. Chair is Janet K. Sheehan-Holt from Northern Illinois University.

E - Counseling and Development
This division is concerned with the understanding of human development, special education, and the application and improvement of counseling theories, techniques, and training strategies. The Sr. Chair of Division E is Linda Bakken from Wichita State University.

F - History and Philosophy
This division is concerned with the findings and methodologies of historical research in education. The Sr. Chair of Division F is Louise Fleming from Ashland University, and the Jr. Chair is Doug Feldman from Ashland University.

G - Social Context of Education
This division is concerned with theory, practice, and research on social, moral, affective, and motivational characteristics and development, especially multi cultural perspectives. The Sr. Chair of Division G is Mary Ann Wham from the University of Wisconsin - Whitewater, and the Jr. Chair is Celina V. Echols from Southeastern Louisiana University.

H - School Evaluation and Program Development
This division is concerned with research and evaluation to improve school practice, including program planning and implementation. The Sr. Chair of Division H is John W. Fraas from Ashland University, and the Jr. Chair is Isadore Newman from the University of Akron.

I - Education in the Professions
This division is concerned with educational practice, research, and evaluation in the professions (e.g., medicine, nursing, public health, business, law, and engineering). The Sr. Chair of Division I is Richard M. Smith from Rehabilitation Foundation, Inc, and the Jr. Chair is Joyce Miller from Mt. Vernon Nazarene (OH).

J - Postsecondary Education
This division is concerned with a broad range of issues related to two-year, four-year, and graduate education. The Sr. Chair of Division J is Tom Cody from Western Illinois University, and the Jr. Chair is Rodney J. Greer from Western Illinois University.

K - Teaching and Teacher Education
This division is concerned with theory, practice, and research related to teaching at all levels and in-service and pre-service teacher education, including field experience supervision and mentoring. The Sr. Chair of Division K is Maria Elena Galvez-Martin from The Ohio State University–Lima, and the Jr. Chair is James Salzman from Ursaline College.

Important Dates

Proposal Submission Deadline	April 16, 1999
Notification of Acceptance	July 15, 1999
Papers to Session Chairs/Discussants	September 1, 1999
Meeting Registration and Hotel Reservations	September 15, 1999
MWERA 1999 Annual Meeting	October 13 - 16, 1999

Guidelines for Submitting a Proposal

Session Format Descriptions

Paper Presentation

Paper sessions are intended to allow presenters the opportunity to make short, relatively formal presentations in which they overview their papers to an audience. Three to five individual papers dealing with related topics are grouped into a single session running from 1.5 to 2 hours. The presenter(s) of each paper is(are) allowed approximately 15 minutes to present the highlights of the paper. A single Session Discussant is allowed approximately 15 minutes, following all papers, for comments and critical review. A Session Chair moderates the entire session. Presenters are expected to provide complete copies of their papers to all interested audience members.

Roundtable Discussion/Poster

Roundtable Discussion/Poster sessions are intended to provide opportunities for interested individuals to participate in a dialogue with other interested individuals and the presenter(s) of the paper. Presenters are provided a small table around which interested individuals can meet to discuss the paper. Presenters may elect to provide small, table-top poster-type displays, ancillary handouts, or other table-top A/V materials to augment their discussions. Interested individuals are free to move into and out of these discussions/posters as they wish. Presenters are expected to make available complete copies of the paper on which the roundtable discussion/poster was focused.

Symposium

A symposium is intended to provide an opportunity for examination of specific problems or topics from a variety of perspectives. Symposium organizers are expected to identify the topic or issue, identify and ensure the participation of individual speakers who will participate in the session, prepare any necessary materials for the symposium, and Chair the session. It is suggested, though not required, that the speakers or symposium organizer will provide interested individuals with one (or more) papers relevant to, reflective of, or drawn from the symposium.

Workshop

Workshops are intended to provide an extended period of time during which the workshop leader helps participants develop or improve their ability to perform some process (e.g. how to provide clinical supervision, using the latest features of the Internet, or conduct an advanced statistical analysis). Organizers may request from 1.5 to 3 hours, and are responsible for providing all necessary materials for participants. Many workshops are scheduled for Wednesday afternoon, although others may be scheduled throughout the conference. Organizers may, if they wish, receive an honorarium based upon the number of paid participants in their workshop and the fee schedule.

Alternative Session

The form, topics, and format of alternative sessions are limited only by the imagination and creativity of the organizer. These options are intended to afford the most effective method or approach to disseminating scholarly work of a variety of types. Proposals for alternative sessions will be evaluated on their appropriateness to the topic and audience, their suitability to meet the limitations of time, space, and expense for MWERA, and the basic quality or value of the topic. The organization of alternative sessions is responsible for all major participants or speakers, developing and providing any necessary materials, and conducting or mediating the session. Because a variety of approaches may be proposed within this category, alternative session proposals should include a brief rationale for the alternative being proposed.

Materials to be Submitted

The following materials list applies to proposals submitted on paper. Separate guidelines exist for electronically submitted proposals (see the Web site for details).

Proposal Cover Sheet

Six (6) copies typewritten with all items completed. Session descriptors must be chosen from the list of descriptors provided (see table to the right).

Summary

Six (6) copies of a two to three page summary for use in judging the merits of the proposal. Summaries can be single-spaced, but must be typed on 8.5" x 11" paper in no smaller than 10-point type using 1" margins. All copies of the summary should include the title of the proposed session in the upper left-hand corner of the first page. On three of the summaries only include the name of the presenter, with his or her complete mailing address, telephone and FAX, and e-mail, in the upper right hand corner of the first page. Proposals, which do not meet these criteria, may be refused by the Program Chair without review.

Summaries for **Paper** and **Roundtable Discussion/Poster** proposals should explicitly address as many of the following as appropriate, preferably in this order:

(1) Objectives, goals, or purposes;
(2) Perspective(s) and/or theoretical framework;
(3) Methods and/or techniques (data source, instruments, procedures);
(4) Results and conclusions; and
(5) Educational and/or scientific importance of the work.

Summaries for **Symposium**, **Workshop**, and **Alternative Session** proposals should explicitly address as many of the following as appropriate, preferably in this order:

(1) Descriptive title of the session;
(2) Objective, goals and purposes of the session;
(3) Importance of the topic, issue, or problem;
(4) Explanation of the basic format or structure of the session;
(5) Listing of the Presenter and Co-Presenter(s), with an explanation of each person's relevant background and role in the session;
(6) Anticipated audience and kind of audience involvement.

Abstract

Three (3) copies of a 100 - 150 word narrative abstract. The abstracts of accepted papers will be published the *MWERA 1999 Annual Meeting Abstracts* book, and will be available on the World Wide Web site. Abstracts must be typewritten, single-spaced, using a 12 point Arial or Times Roman font. Use clear, precise language, which can be understood by readers outside your discipline. In the upper left hand corner of each abstract page type the title of the paper, and the name and institutional affiliations of each author.

Envelopes

Four (4) stamped, self-addressed, business size (#10) envelopes. These will be used to inform you of: (a) receipt of the proposal by the Program Chair; (b) the decision about your paper's acceptance; (c) your scheduled session time, Session Chair, and Session Discussant, and; (d) meeting registration and hotel reservation information.

Session Descriptors

Ability Grouping
Accountability
Accreditation
Achievement
Action Research
Adaptive Testing
Administration
Admissions
Adolescence
Adult Education/Development
Affective Education
Aging
Anthropology
Aptitude
Artificial Intelligence
Arts Education
Asian Education
Assessment
At-Risk Students
Attitude
Attribution
Bilingual/Bicultural
Black Education
Business Education
Career Development
Case Studies
Certification/Licensure
Child Development
Classroom Management
Classroom Research
Clinical Education
Cognition
Cognitive Processes/Develop
Collaboration
Community Colleges
Comparative Education
Compensatory Education
Comprehension
Computer Applications
Computerized Testing
Computers and Learning
Conceptual Change
Constructivism
Continuing Education
Cooperative Learning
Counseling
Counselor Training/Supervision
Critical Theory
Critical Thinking
Cross-Cultural Studies
Curriculum
Data Analysis
Decision Making
Demography
Desegregation
Differential Item Functioning
Dimensionality
Dropouts
Early Childhood
Economics of Education
Educational Policy
Educational Reform
Elementary Schools
Equating
Equity
Ethics
Ethnicity
Evaluation
Experimental Design
Facilities
Factor Analysis
Faculty Development
Family/Home Education
Finance
Gay/Lesbian Studies
Gender Studies
Generalizability Theory
Gifted Education
Governance
High Schools
Hispanic Education
History
Indian Education
Indicators/Information Systems
Individual Differences
Information Processing
Instructional Design/Development
Instructional Practices
Instructional Technology
Intelligence
International Education/Studies
Item Response Theory (IRT)
Language Comprehension/Devel
Language Processes
Law/Legal
Leadership
Learning Environments
Learning Processes/Strategies
Life-Span Development
Literacy
Literature
Mainstreaming
Mathematics Education
Measurement
Media
Medical Education
Memory
Mentoring
Meta-Analysis
Metacognition
Middle Schools
Military Education
Minorities
Moral Education/Development
Motivation
Museum Education
NAEP
Networking
Organization Theory/Change
Peer Interaction/Friendship
Performance Assessment
Philosophy
Physical Education
Planning
Politics
Postsecondary Education
Principals
Private Education
Problem Solving
Professional Development
Program Evaluation
Psychometrics
Qualitative Research
Race
Reading
Research Methodology
Research Utilization
Restructuring
Retention
Rural Education
School/Teacher Effectiveness
Science Education
Self-Concept
Social Class
Social Context
Social Processes/Development
Social Studies Education
Sociology
Special Education
Staff Development
Standard Setting
Statistics
Stress/Coping
Structural Modeling
Student Behavior/Attitude
Student Cognition
Student Knowledge
Student Teaching
Studying
Supervision
Survey Research
Teacher Assessment
Teacher Characteristics
Teacher Cognition
Teacher Education/Development
Teacher Knowledge
Teacher Research
Teaching Context
Technology
Testing
Test Theory/Development
Textbooks
Tutoring
Urban Education
Validity/Reliability
Vocabulary
Vocational Education
Women's Issues
Work
Writing

Proposal Submission Cover Sheet (All Session Types)
Mid-Western Educational Research Association 1999 Annual Meeting

Presenter's Name: ______________________________
(First Name) (Middle Initial) (Last Name)

Affiliation: ______________________________

Mailing Address: ______________________________
____

Telephone: (   ) ______________ FAX: (   ) ______________

E-mail: ______________________________

Are you a member of MWERA? ☐ Yes ☐ No *(Reminder: If your proposal is accepted and you are not a member, you will need to join!)*

Are you a graduate student? ☐ Yes ☐ No *(Student presentations are automatically entered in the annual competition/prize contest!)*

Co-Presenter(s)/Co-Author(s) Name	Affiliation

Title of Submission: ______________________________
____

Division	**Desired Session Type**		**Workshop Detail**		**Session Descriptors**
	1st Choice	2nd Choice	(Workshop Proposals Only)		(From Prior Page Only)
☐ A ☐ E ☐ I	☐ Paper	☐ Paper	☐ 1 Hour	Maximum	____________
☐ B ☐ F ☐ J	☐ Roundtable	☐ Roundtable	☐ 1.5 Hours	enrollment of	
☐ C ☐ G ☐ K	☐ Symposium	☐ Symposium	☐ 2 Hours	________	____________
☐ D ☐ H	☐ Workshop	☐ Workshop	☐ 2.5 Hours	persons at	
☐ Cross-List (indicate): ____________	☐ Alternative Session	☐ Alternative Session	☐ 3 Hours	$______ per	____________

By submitting this proposal I hereby certify that: (1) this proposal has not been previously submitted to MWERA either on paper or in electronic form; (2) this submission has not been previously published or presented at any other professional meeting; and (3) if this submission is accepted and placed on the program I will register for the full MWERA-99 meeting, attend the conference, and deliver this presentation at the assigned date & time.

______________________________ ______________
Signature of the Principal Presenter Date

Be certain to enclose all of the following material with your proposal:

Six (6) copies of this Proposal Submission Cover Sheet, typewritten, with all items completed
Six (6) copies of a two to three page Summary: three (3) copies with author information, three (3) copies without author information
Three (3) copies of a 100 - 150 work narrative Abstract, typewritten, in 12 point Arial or Times Roman font
Four (4) stamped, self-addressed, business size (#10) Envelopes
THE COMPLETE PROPOSAL SUBMISSION MUST BE RECEIVED BY THE PROGRAM CHAIR NO LATER THAN APRIL 16, 1999!

Presidential Address

Free Market Policies and Public Education: At What (Opportunity) Cost?

Kim K. Metcalf
Indiana University

School choice has been called the "most prevalent reform idea of the 1990s" (Witte, 1992, p. 206). Even Boyer (1992), a critic of school choice states, "Choice has, without question, emerged as the single most rousing idea in the current school reform effort" (p. 20). The notion of allowing parents and families the right to choose the school their children will attend is popular among both politicians and the public (VanDunk, 1998) and momentum to develop choice programs continues to grow (Fuller, 1996). The number of charter schools, magnet schools, and alternative schools is increasing at an unprecedented rate, each offering parents additional educational choices (Tucker and Lauber, 1995). School choice programs can take many forms, each of which raises issues regarding the role and scope of public education. Voucher programs, proposals to provide families with public funds to be used at the public or private school of their choice, are undoubtedly the most emotionally debated alternative.

The following sections of this paper discuss questions raised by the voucher issue. Among these are questions related to the impetus for the current choice movement, the nature or structure of existing school voucher programs, and the findings of research on the effects of the voucher programs. It must be acknowledged at the outset that definitive answers about the fundamental goodness of publicly-funded voucher programs are not available and they may never be. The present purpose is merely to promote a better understanding of the issue.

What are "voucher" programs?

The school choice movement, the notion of providing children and families with options for the school and educational program in which they participate without regard for the neighborhood in which they live, includes a broad range of approaches (Glenn, 1998). Vouchers represent only one of many forms of choice that may be made available to parents regarding the education their children will experience. Greater choice is made possible by providing families with money (in the form of a voucher) that can be used for tuition in any participating school, usually including both public and private schools. As a result, voucher programs differ from most other choice programs in at least three important ways. First, and usually most contentiously, the programs allow parents to use the voucher to select from among both public and private schools. Second, all currently operating voucher programs include schools with religious affiliations. The state-funded voucher program in Milwaukee was the single exception until recent court rulings allowed the program to expand to include both secular and religious private schools. Third, unlike other choice approaches, 14 of the existing 16 voucher programs in the U.S. operate on private rather than public funding (Beales, 1994). It may be in this regard that they present their greatest threat to public education.

What are arguments for voucher programs?

The case for greater parental choice and voice in their children's education is made by those of all political stripes and persuasions, from far-right to far-left, liberal and conservative, ethnic minority and ethnic majority, from the wealthy and from the poor, from the religious and secular. Not surprisingly in light of this diversity, the underlying rationale for the importance of choice and the likely benefits such programs will affect cross a broad range of perspectives. Thus, it is difficult to state precisely a single case that represents the position of choice advocates, particularly advocates of vouchers. For some, the importance of vouchers lies in providing poor families, particularly those living in the inner cities the opportunity for educational choice that more affluent families have always possessed (e.g., McGroarty, 1994; Ravitch and Viteritti, 1996). By this argument, families with even moderate income routinely choose their children's school by the school district or neighborhood in which they live. For families with somewhat greater income, additional choices are available through personally funded private school enrollment. Poor families have little or no choice in where they reside, often being forced to live in neighborhoods near the most dangerous and least effective schools. Voucher programs would diminish the inequality of available choices by providing more options for poor families.

Other advocates believe that allowing parents choices in the schools their children attend would promote greater competition among schools and, thus, would improve the quality of schools and encourage innovative approaches to education (Chubb and Moe, 1990; Friedman, 1962). The current public monopoly on education reduces or eliminates incentives for school improvement or experimentation because there is no "market share" to be gained or lost. Ineffective schools, no matter how effectiveness may be defined, suffer no ill consequences and highly effective schools receive no tangible benefits. Such a system not only fails to support success but, combined with highly regulatory bureaucracies, promotes maintenance of the status quo. Change and innovation are implicitly discouraged through unnecessary "red tape" and the difficulties associated with obtaining official sanction or approval.

According to advocates, voucher programs would allow, even force, all schools to be as effective as private schools have been (Gintis, 1995; Glazer, 1993). Private school students routinely achieve at higher levels than public school students, students behave more appropriately in private schools, and parents are more satisfied with the quality of their children's education in private schools (e.g., Coleman, Hoffer and Kilgore, 1981; Martinez, Godwin, Kemerer and Perna, 1995). These valuable outcomes of private schooling result, at least in part, from the competitive market-driven context within which private schools must survive. Unlike public schools, private schools must meet the needs of a sufficient number of students and families to remain financially viable. As a result, private schools focus more on students' needs, on the interests and input of parents, and on ensuring that clearly defined goals for student learning and behavior are reached. Voucher programs would force every school, whether public or private, to become more accountable in order to remain viable. Parents would choose to send their children to schools which best met their needs, and less desirable schools would be forced to change or close (McGroarty, 1994).

How strong is the voucher movement and what is its impetus?

While many of these arguments seem extreme and perhaps a bit naïve, they reflect the perceptions of a huge proportion of parents in the U.S. (Carlos, 1993). Over 95% of adults in the U.S. believe that parents should be allowed greater choice regarding their children's education. When asked whether they would support the redirection of some current education funding to provide vouchers with which parents could enroll their children in the public or private school of their choice, 50% of *public school* parents said yes (Matthews and Hansen, 1995). Further, approximately half of current public school parents would send their children to a private school if they were awarded a publicly-funded voucher (Lowell and Gallup, 1998). Among minority families and those living in the inner city, over 80% of parents believe that state-funded vouchers are a desirable and important approach to improving education. It is clear that school choice in its many forms, and particularly voucher programs supporting enrollment in both public and private schools, is likely to continue grow (Jones and Ambrosie, 1995).

Underlying this movement are at least three factors that reflect the unique contemporary context of education in the United States. The most obvious of these is widespread and continuing concern over the quality of public schools. Clearly, and in spite of a small number of researchers who present evidence to the contrary (e.g., Berliner and Biddle, 1995; Bracey, 1995), many Americans are convinced that the public schools are not effective, that they must be changed, and that radical measures are probably justified (Lowell and Gallup, 1998). A second factor that seems to undergird pressure for greater educational choice is a general societal movement toward egalitarianism and decentralization (see Morgan, 1997). Public respect for authority, belief in government, attitudes about the value of regulation, and acceptance of a uniquely "American" culture have eroded, probably not without cause. Within the realm of education, this trend can be seen in decentralization of school governance, site-based management, school and teacher autonomy, school improvement committees, and increased parental input in the functioning of their local schools. A third and probably related factor that seems to support the movement toward school choice is growing disagreement over the goals of mandatory public education. Public education in the U.S. was developed largely to enculturate the citizenry, particularly newly arrived immigrants, and to promote a common core of values, attitudes, and knowledge. Over time and as the shear amount of information available has grown and ideas about culture and society have changed, there is increasing divergence on what should be the primary purpose of our schools.

What is the current extent of voucher programs in the U.S.?

To date, only two publicly-funded voucher programs are operational: in Cleveland, Ohio and in Milwaukee, Wisconsin. However, privately-funded voucher programs currently operate in 14 cities across the country, and new programs, both publicly and privately-funded are in varying stages of development in at least 33 other cities. None of these programs serves more than a small percentage of eligible students within their region, and most have been operating for only a few years. In spite of this, the nature of these programs and the threat they pose to the longstanding nature and status of public education have raised the visibility of the issue and intensified the already emotional debate over not just the future of voucher programs, but of public education in this country (Tucker and Lauber, 1995).

What do we know about voucher programs?

There are few definitive answers about the effects of voucher programs as too little evidence is available. Each of the currently available studies of publicly-funded voucher programs is reviewed below. The goal of this endeavor is not to critique the research, but rather to make the reader aware of what has been done and what remains to be done as the voucher debate continues.

Research on Publicly-Funded Voucher Programs

Privately-funded voucher programs outnumber publicly-funded programs and are much more limited in size and scope. In addition, very little research is available on these programs and all of it has been conducted by sponsors of the programs. For these reasons, the current review is limited to studies of the two publicly-funded voucher programs: The Milwaukee Parental Choice Program and the Cleveland Scholarship and Tutoring Grant Program.

The Milwaukee Parental Choice Program

The Milwaukee Parental School Choice Program, was created in 1989 and initiated in 1991, provided up to $2,500 in private school tuition for children in families whose income did not exceed 1.75 times the national poverty level, with funds used to provide vouchers deducted from state general equalization aid to Milwaukee Public Schools (MPS). Originally, qualifying schools were to be non-sectarian but in August, 1998 the Wisconsin Supreme Court ruled that the program can be structured to include religiously affiliated schools without violating the state's constitution.

To date, three studies have been conducted of the Milwaukee voucher program. The original and most extensive was that of Witte, Thorn, Pritchard and Claibourn (1994) who were selected by the Wisconsin Department of Public Instruction to conduct a multi-year evaluation of all aspects of the program. Shortly after release of Witte's fourth-year report, Greene, Peterson, and Du (1996) and Rouse (1997) released studies of the program in which the original data were reanalyzed.

Witte, Thorn, Pritchard and Claibourn (1994). The most comprehensive evaluation of the Milwaukee voucher program was conducted over a multi-year period by John Witte of the University of Wisconsin. Beginning in 1991, Witte and his associates collected data on the students, schools, and families who participated in the choice program. The fundamental effectiveness of the program was judged by comparing data from participating students and families with those from non-participating Milwaukee Public School (MPS) students and families.[1] The primary data sources were student school records (including achievement test scores, eligibility for free or reduced price lunch, etc.), records maintained by the voucher program office (e.g., student attrition, etc.), and surveys of parents and students conducted by the research team

The voucher program in Milwaukee successfully met its goal of providing private school educational opportunities for the children of economically disadvantaged, inner-city families. Further, students attracted to the program were not, as many had feared, among the higher achieving public school students, but were instead among the lowest achieving. However, and interestingly, the families of the voucher children were better educated and more interested in their child's education, both before and after entering the program, than families of Milwaukee Public School students, though their involvement with the school was lower before entering the program. Perhaps most notably, the voucher program did not affect any consistent change in students' academic achievement. Voucher students' adjusted reading achievement was greater than that of MPS students in year one, lower in year two, and roughly the same in years three and four; adjusted mathematics achievement was roughly the same during years one and two, significantly higher in year three, and significantly lower in year four.

The Witte evaluation remains the most thorough study of the Milwaukee voucher program to date and, as the first study of a publicly-funded voucher program, was greeted with substantial attention. Voucher opponents hold up the study as evidence that such programs do not result in the desirable outcomes that advocates had suggested, particularly improved student learning. Supporters of vouchers note that the program effectively serves poor families, does not draw high achieving students from public schools, and improves parent involvement and satisfaction, even if it does not clearly increase student learning.

Greene, Peterson and Du (1996). Shortly after the original data were released, researchers at Harvard and Princeton independently reanalyzed the Milwaukee data using the "natural experiment" afforded by the voucher applicants who were not selected in the random voucher assignment process. Greene, Peterson, and Du (1996) argued that not only did Witte et al. (1994) fail to analyze the data available for randomly assigned students, but that they also failed to apply necessary blocking and hierarchical techniques. Thus, in a series of analyses, Greene et al. compare ITBS scores of voucher students with their randomly assigned public school peers over each of the first four years of the program. Each hierarchical analysis is blocked on three variables: ethnicity, year of entry (into the voucher program), and grade level. The results of the subsequent analyses indicated that when achievement scores are adjusted for gender, voucher students outperform their public school peers in mathematics during year four (estimated standardized effect of 11.59 using 2-tailed tests of significance) or years three and four (estimated standardized effect of 4.98 using 1-tailed tests of significance);[2] however, no significant differences were found in mathematics for years one or two, or in reading for any year. When achievement scores are adjusted for gender, family income, and mother's education, there are no significant differences in mathematics or reading for any year. However, when achievement scores are adjusted for gender and prior test scores, voucher students significantly outperform their public school peers in both reading and mathematics during year three, but not in years one, two, or four. Thus, Greene, Peterson, and Du were led to conclude that, "Students who remain in the choice experiment for three to four years learn more than those not selected" (pp. 5-6).

Rouse (1997). Independent of Greene et al. (1997), Rouse (1997) reanalyzed the Milwaukee data comparing voucher students with randomly non-selected public school students and a separate random sample of Milwaukee public school students. Rouse estimates the effects of program participation controlling for individual fixed-effects and reports that participation in the voucher program increased mathematics scores by 1.5 - 2.3 percentile points per year, a statistically significant and positive program effect. However, she finds no significant program effect on students' reading scores. Rouse notes several caveats to her analyses and cautions that "these are average effects that do not necessarily mean all of the choice schools are 'better' than the Milwaukee public schools" (p. 33).

Across the three studies, it seems clear that the Milwaukee Parental Choice Program is effective in enhancing choice for low-income, predominately African American and Hispanic families. Children of families who pursue the vouchers may be somewhat more "at-risk" than the typical MPS student in that they are: more likely to live in a single parent home, poorer, are achieving at lower levels, and have parents who are less involved in their education. Conversely, these children are somewhat less "at-risk" in that: their mothers are slightly better educated and they have fewer siblings. What is much less clear is whether participation in the voucher program leads to greater student achievement.

The Cleveland Scholarship and Tutoring Grant Program

The most recent publicly-funded voucher program was implemented in Cleveland, Ohio in 1996 and provides private school tuition scholarships (i.e., vouchers) to poor families within the Cleveland public school district. Vouchers are awarded to families primarily on the basis of income, but with an attempt to ensure that the relative ethnic enrollments of Cleveland public schools are maintained within the program. First consideration is given to families whose income is at or below the federal poverty level, then to families with income of between 100% and 200% of the federal poverty index, and then, if any scholarships or tutoring grants remain, families with greater income are eligible. Within each income range, scholarships are awarded through a random lottery process, structured to ensure that 75% of the scholarship recipients are African American. In its first year (1996-97), the program enrolled 1,801 children in 41 private schools, three of which these schools were non-religious.

As in Milwaukee, the focus of the program was on providing educational choice and assistance to low-income, inner-city families, including the option of using state funds to pay for private education. However, the Cleveland program differed from the choice program in Milwaukee in three significant ways. First, the Cleveland program focused on children in grades kindergarten through three during the first year with a grade added each subsequent year through grade eight. Second, the Cleveland program provided state assistance to families who wished to continue to enroll their children in public school, but who wanted additional educational assistance from state-approved tutors. Third, and perhaps most importantly, the Cleveland program allowed parents to choose private schools with religious affiliations.

The legislation which established the scholarship and tutoring grant program required the Ohio Department of Education to conduct an independent evaluation of the program during the first three years of its operation. Through a competitive bidding process, the Indiana Center for Evaluation at Indiana University was selected to complete this work. In addition to the state-sponsored evaluation, Greene et al. (1997) have completed studies of two non-religious schools (HOPE schools) which were established by an active supporter of vouchers and have conducted a reanalysis of the first-year results of Metcalf, Boone, Stage, Chilton, Muller, and Tait (1997). These reports provide the limited source of empirical information on the Cleveland voucher program.

Metcalf, Boone, Stage, Chilton, Muller, and Tait (1997). Beginning in April, 1997, the independent research team at Indiana University implemented the first of a multi-year examination of several elements of the Cleveland voucher program. During the first year, primary focus was given to evaluating the effects of the voucher program on students' academic achievement and to establishing a dataset and procedures that would allow longitudinal evaluation of the program's effects for at least three years. Because all students who had applied for a voucher had been offered one, the ideal comparison group (consisting of students whose families had applied for a voucher, but who had not been selected in the random lottery) was not available. As a result, it was critical that the impact of the program take into account other relevant variables which might impact students' academic performance. Previous literature had suggested that students who participated in choice programs were likely to be among the most successful public school students, the evaluation team felt it particularlv important to obtain a measure of students' academic performance prior to entry into the voucher program

In May, 1997, the Terra Nova Survey, Form 13 (CTB/McGraw-Hill, 1996) was administered by independent proctors who had been trained and were supervised by the evaluation team. It should be noted that the two HOPE schools refused to allow their students to be tested, however they agreed to provide students' scores on a different achievement test administered as a part of the Greene et al. (1997) study.

The findings of Metcalf et al. (1997) seemed to support those of Witte (1994) in that the voucher program did not promote increased student achievement, at least in the first year. Achievement of participating students was not significantly different from that of non-participating public school students after other relevant variables were accounted for. Similarly, Cleveland voucher students were more likely to come from single parent households, usually headed by a mother. However, Metcalf and his colleagues report somewhat different results related to the characteristics of the participating students. Voucher students in Milwaukee were of lower income and somewhat more likely to be non-minority than their public school peers, but students in Cleveland were of very similar income and ethnicity to students in the public schools. Further, whereas voucher students in Milwaukee were among the lowest achieving students prior to their entry into the program, voucher students in Cleveland were achieving at slightly higher levels than their public school peers before they entered their voucher schools.

The first-year results from the Cleveland program were noted by Metcalf et al. (1997) as tentative, based only on the first of a multi-year evaluation and subject to the limitations of the evaluation. While the study addressed the concerns of Rouse and others related to control of the achievement testing process, it did not control for at least two important variables. First, no measure of parental education level was obtained, a factor related to students' academic achievement. Second, the study did not make use of a randomly assigned comparison group of students, thus leaving open the possibility that the voucher and non-voucher students were different in important ways. The release of the first-year report provoked a flurry of attention from both advocates and opponents of vouchers and, like the evaluation efforts in Milwaukee, prompted reanalysis by Greene (1997) and his colleagues.

Greene, Howell, and Peterson (1997) and *Peterson, Greene, and Howell (1998).* Greene, Howell, and Peterson (1997) provide two additional evaluations of the Cleveland voucher program during its first year. In their first study, Greene et al. (1997) collected data on the effects of participation in the voucher program on parents' satisfaction with their children's schools and the effects of the voucher program on students' academic achievement. This was done by conducting telephone surveys and by examining fall to spring changes in the academic achievement of 263 voucher students attending the two private HOPE schools.

Parental interviews were conducted during the summer of 1997 with response rates (number of parents agreeing to be interviewed) of 74.1% for recipients and 48.6% for non-recipients. Green et al. (1997) report that recipients indicated that the primary reason for their interest in the voucher program was improved academic quality (85%), followed by safety (79%), school location (not reported), and religion (37%), and that they were much more satisfied with virtually every aspect of their children's schools than were non-recipients. Minority recipients were slightly less satisfied with their private school than were non-minority recipients (3% difference indicated, but not reported), whereas there were no differences between minority and non-minority non-recipients.

In the second portion of their study, Greene et al. (1997) examine fall to spring changes in academic achievement test scores of children attending the two HOPE schools. These schools were newly established specifically to accommodate voucher children for whom sufficient space might not be available in other private schools and are of particular interest. These schools announced from the outset that they would accept all students who applied for admission including "many of the poorest and most educationally disadvantaged students" (p.10), a fact that is borne out by examination of second grade test scores. Further, the HOPE schools enroll nearly 15% of all voucher students.

From their inception, the HOPE schools integrated a program of self-evaluation which was to include administration of the California Achievement Test, Form E (CTB/McGraw-Hill, 1985) in the fall and spring of each year. Classroom teachers proctored each administration of the Complete Battery over a week-long period. The investigators found that the students improved significantly from fall to spring testing in math and reading. Upon collection of fall, 1997 data, the investigators found the gains made by students during the previous year continued, though they diminished somewhat.

Greene et al. (1997) note that "definitive conclusions about the effects of the scholarship program on academic achievement depend upon the collection of additional data" (p.10). However, they suggest that the generally positive and statistically significant gains made by these students are particularly impressive when contrasted with "the 1 to 2 point decline that is typical of inner-city students" (p. 10). Across the parental attitude and student achievement data, the investigators find substantial evidence in favor of the voucher program and little evidence to support those who argue against it. They further conclude that the results indicate the need for choice programs to be structured to provide special funding arrangements when necessary and to ensure that students with special needs are not overlooked.

The second study conducted by Peterson, Greene, and Howell (1998) was a reanalysis of third-grade achievement data collected and then made public by Metcalf et al. (1997). Peterson et al. were critical of several aspects of the initial study, noting particularly the decision of the original researchers not to include in their analyses the unique test data for students in the two HOPE schools (see above) and suggesting that the second-grade test scores used as covariates in the original study were "dubious" (p. 2). Thus, Peterson and his colleagues transformed students' scores to a common metric (they use the term "percentile points" when referring to these scores, but they appear to be NCE scores), producing a larger sample, and then reanalyze the achievement data. They found that after covarying on gender, ethnicity, family income, and family structure, but without including the measure of prior achievement, voucher students' third-grade achievement is significantly higher than that of their public school peers in language and science ($p < .01$), but not significantly different in reading, mathematics, or science. The investigators note that the differences in reading and social studies, which favor voucher students, are significant when a one-tailed test with $p < .10$ is applied. When prior achievement is included in the covariates, the differences in language and science, both favoring voucher students, are significant at $p < .10$ in a one-tailed test.

Summarizing their report, Peterson et al. (1998) indicate differences in methodology between their study and Metcalf et al. (1997), but that "Both studies find positive choice school effects in some subject domains among third-grade students" (p. 5).

The results of evaluation of the Cleveland voucher program are tentative and early; much more time and data are needed before conclusions can be drawn with confidence. Perhaps because the program is so new and data drawn from it limited, the findings of three studies conducted to date appear to provide somewhat conflicting results. In general, parents whose children participate in the voucher program seem to be pleased with the opportunity they are provided and feel satisfied with the private schools their children attend. They based their decision to pursue a tuition voucher primarily on their interest in improving the quality of their children's education and concern over the safety of their children's public school. The effects of the voucher program on children's academic achievement are unclear. Students who participate in the program were achieving at higher levels than their public school classmates before entering the program. When these initial differences are taken into account, the voucher program appears to affect no significantly greater improvement in students' academic achievement than they would have experienced had they continued to attend public school after one year.

Summary

Surprisingly little research has been conducted on publicly-funded voucher programs. And, in many ways, the findings have been subjected to interpretations based as much on ideology as on scholarly detachment. Unfortunately, there remains considerable misunderstanding of the results of research on vouchers and confusion is exacerbated by highly public commentary from those on both sides of the issue. Nonetheless, examination of research related to school choice and particularly of publicly-funded vouchers reveals some consistent, though undoubtedly tentative patterns. A multitude of factors will impact the direction, extent, and nature of school choice in coming years. Still, some "predictions" are possible.

Families will continue to press for a wider variety of choices for their children's education and policy makers, both conservative and liberal, are likely to respond. Public schools have and must continue to develop programs to attract and retain families who now expect at least some range of choices. As forced busing for desegregation continues to decline while non-public alternatives become more prevalent, metropolitan school districts are presented with both a challenge and an opportunity. Students and funds which have previously been moved from these districts to suburban schools now provide an increased market for public school education. Further, whereas previous attempts at desegregation relied on imposed school assignment, most efforts (e.g., the federal Magnet Schools Assistance Program) now focus on developing programs which attempt to improve racial balance by attracting targeted minority or nonminority students. It seems, then, that at least one impact of the choice movement has been and will continue to be an increase in the number and variety of options public schools will provide.

If a substantial number of families are provided with and take advantage of alternatives to public education, the effect on public schooling as it has been conducted will be negative as resources for public schools would diminish if funds are redirected. It could be argued that if public schools fail to provide a service that is desired by enough people (i.e., customers) to remain viable, they should be forced to redesign themselves or close. However, even though U.S. public schools must deal with greater competition than ever before, there is no evidence to suggest that non-public competition will ever be allowed to reach a point at which the public school system itself is endangered. Public education employs millions of people, many of whom belong to a well-organized professional union with substantial political clout, it generates substantial income for businesses that supply services and products to the schools, and it touches literally every citizen. To date, no choice programs, public or private, have the potential to destroy the well entrenched monolith that is public education in this country.

Fundamentally, greater family control over education, within obvious parameters, should be encouraged. Many in the education establishment would argue that the parameters within which choice should be allowed should be relatively restrictive to minimize differences in the outcomes and benefits students derive. However, I would argue that the widest possible range of choice should be made available and that, though it will not be popular, the educational market should be allowed to operate.

Educational choice will continue to be the most contentious issue in U.S. education for the foreseeable future. As educators, particularly university-based educators, we have a unique opportunity to use the educational choice movement to promote innovative, creative approaches to schools and teaching. In order to draw students and maintain enrollments, schools will be seeking assistance in developing and improving programs to make them more attractive to greater numbers of families. If we take advantage of this opportunity, we have to potential to make schools more inviting and supportive places for children.

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[1] Two related facts are noteworthy. First, the comparison sample of non-voucher public school students is open to question due to selection bias. Although Witte and his colleagues attempted to control for many relevant, non-program variables (e.g., prior achievement, gender, income, etc.), it must be assumed that participating students and families were substantially different from non-participating families at least in their motivation, interest, willingness, or ability to pursue the voucher. Second, because comparisons of students' academic achievement were based on the results of tests administered by the schools, no control of the conditions of testing were available to Witte et al.

[2] See Abelson (1996) for a humorous discussion of the "one and a half tailed test."

Conference Highlights

The 1998 Annual Meeting of the Mid-Western Educational Research Association

Jeffrey B. Hecht, Program Chair
Illinois State University

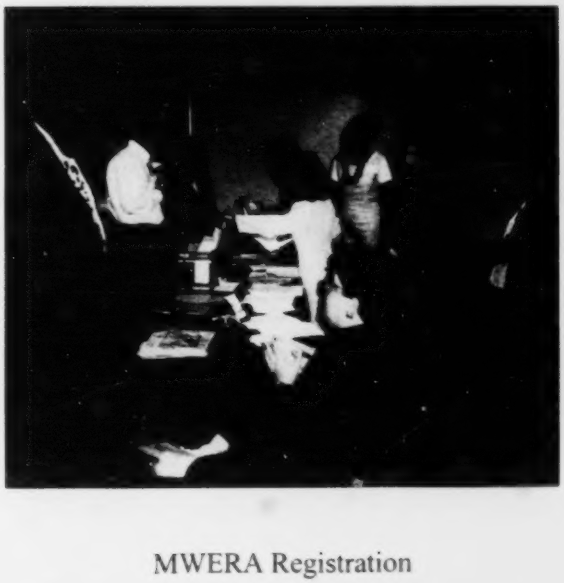
From October 14th through the 17th of this year members of the Mid-Western Educational Research Association (MWERA) gathered at the Holiday Inn Mart Plaza in Chicago, Illinois for MWERA–98, our annual conference. Over 325 people registered for this four day meeting, attending and presenting at a variety of sessions including papers, symposia, roundtable discussion/posters, invited speakers, meetings and socials. MWERA–98 represented the culmination of over a year of hard work by a number of people. First, though, lets review the conference.

MWERA–98 began on Wednesday afternoon (the 14th) with a number of people attending pre-conference workshops. This year several additional workshops were also held Thursday through Saturday, giving attendees the opportunity to participate in more than one interesting event. Initial feedback from this scheduling was positive, and suggests that members might want a greater variety of in-depth experiences held throughout future conferences (something that will be looked into for the 1999 annual meeting).

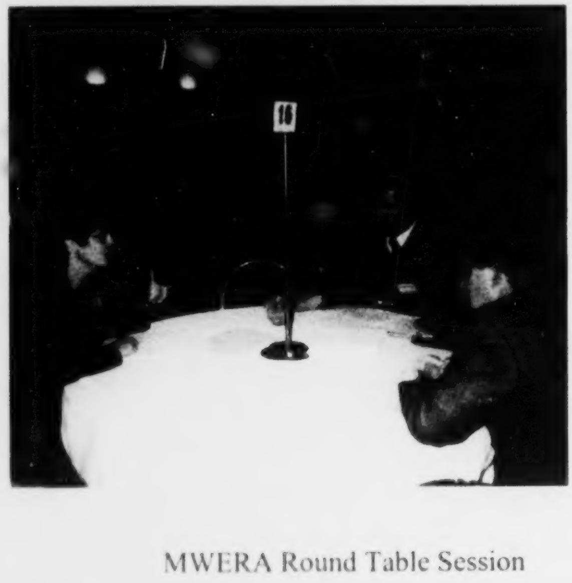
Ed Hines, University Distinguished Professor from Illinois State University, kicked-off the meeting with a Wednesday evening address titled "Policy Research in Higher Education: Data, Decision, & Dilemmas". Ed's talk presented information on the changing nature of policy development and funding over the past several decades for state-supported institutions of higher education. His insights into what might come in the next few years evoked interesting discussion among session attendees, and gave everyone food for thought for the next few days.

Thursday morning began bright and early at 8:00 am with the first paper presentation sessions. Then, at 9:30 am, Bob Albrecht, the Chief Academic Officer from Western Governors University, presented an address titled "Western Governors University: New Challenges, New Technologies, New University". This presentation described the nature and mission of WGU, its support being received from numerous states and companies, and its relationship with traditional institutions of higher education. Talking with many session attendees after the talk revealed that folks did not know a lot about WGU, with many thinking it was another University of Phoenix (known for its distance education initiatives). The actual mission of WGU, addressing competency evaluation and assessment together with cooperative agreements with other institutions, raised folks understanding in and interest about this new model of higher education delivery.

The day continued with additional paper sessions, symposia, and workshops. This year division meetings were held throughout the day on both Thursday and Friday, with the result being a reported increase in meeting attendance and division interest across all divisions! Thursday afternoon saw everyone in the Sauganash Ballroom East for 50 minutes of roundtables/posters. Participants were able to move from



MWERA Registration



MWERA Round Table Session

table to table, meeting and discussing with presenters from a variety of different topics. The number of table-top posters were a big hit, providing another way for presenters to convey their work. Also new this year were a number of table dedicated to "Hot Topics" discussions. Rather than presenting a formal research paper, these presenters engaged participants in a lively discussion concerning many of the hottest issues facing educators today. Special thanks to Tom Parish, then MWERA President-Elect, for suggesting and organizing these innovative presentations. Thursday concluded with the traditional Cracker Barrel social!

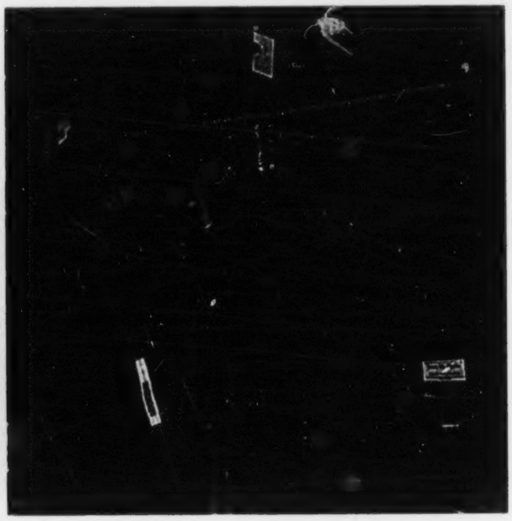
In addition to continued presentations, Friday brought attendees a catered luncheon with an invited address by Judith Gappa, Professor of Educational Administration from Purdue University. Following an excellent meal, Judy presented information about the changing nature of the higher education professoriate. Her talk highlighted issues that are affecting many of the MWERA membership: increasing numbers of non-tenure appointments, changing work loads and expectations, and pressures for modifications to the traditionally held values of academic freedom and tenure. The follow-up session provided attendees the opportunity to examine these issues in greater depth. Another roundtable discussion/poster session highlighted Friday afternoon's activities, along with additional paper sessions and division meetings. That evening MWERA President, Kim Metcalf, hosted the President's Reception, where everyone talked and relaxed to good food, drink, and music.

The final day of the conference, Saturday, saw additional paper presentations and workshops. The highlight, however, was the Presidential Address given by MWERA President, Kim Metcalf, Associate Professor from Indiana University. Kim's talk addressed his work on the use of private tuition vouchers, a movement gaining in popularity across the United States. Early results from his evaluation of the Cleveland Scholarship Program has produced interesting data on the usefulness of vouchers, and sparked a lively interest and follow-up questions from the packed room of attendees! The conference officially ended at Noon following the last sessions.

Overall, the conference was a great success. Attendance was up, and both presenters and attendees reported generally good experiences throughout the meeting (full feedback details are being compiled by Member-at-Large Mary Ann Wham). I want to again thank all of the Division Senior and Junior Chairs who worked so hard coordinating the submissions, review, and session organization for their respective divisions. Sharon McNeely, Thomas Parish, and Jean Pierce deserve special praise for their extra efforts on various parts of the program, insuring that everything came together just the way it was supposed to. Deb Bainer, Richard Smith, and Gene Kramer, the co-editors of the *Mid-Western Educational Researcher*, deserve special thanks for all their assistance and extra efforts in promoting the meeting, and making sure that the inserts and journal looked fantastic! Finally, student volunteers from both Illinois State University and Northeastern Illinois University staffed the registration table, and made sure that the sessions rooms were all well staffed throughout the conference. Preparing for MWERA–98 took an enormous amount of personal time and effort; however, it was time and effort that paid off handsomely. I am looking forward to next year's conference already!

Past-President Sharon McNeely and President Kim Metcalf

Graduate Student Drawing



Thanks to Tom Andre, Iowa State University, for the candid shots.

Electronic or Paper?
Comparing Submissions to MWERA–98

Jeffrey B. Hecht, Program Chair
Illinois State University

The World Wide Web is being used by many professional organizations and societies to provide general information, details of upcoming meetings and events, and membership specific resources. A recent addition has been to provide the means to submit proposals, and view upcoming meeting programs, as a part of the web site. This past year's efforts by the Mid-Western Educational Research Association (MWERA) have taken this concept one step further. In addition to static program information (i.e., basic program details, host city information, and invited speaker profiles), the MWERA–98 conference web site supported both traditional paper and on-line submission of presentation proposals. An on-line database allowed proposers to query the review and scheduling status of their submissions. This same database provided the entire meeting program, including paper abstracts, in an on-line search mechanism designed for locating both sessions, and individual presentations, of interest.

Did proposers for the MWERA–98 conference take advantage of the electronic submission option? Were there differences in the kinds of people who submitted electronically versus on paper? Were certain kinds of presentation types, or certain divisions, more or less likely to receive proposals in a certain format? Finally, was the method of submission related to when the presentation was submitted, the completeness of the proposal package, or its acceptance or rejection? These questions were framed as part of a research study connected with MWERA–98.

Background

The Mid-Western Educational Research Association (MWERA) is an organization of scholars and practitioners, researchers and instructors, and educators from all level and perspectives. Each years MWERA hosts a four-day conference where participants share research findings and opinions in a collegial atmosphere. Like most regional professional meetings, MWERA's annual conference provides a variety of presentation formats (traditional paper presentation, roundtable/poster, symposium, workshop, and alternative format) interspersed with invited speakers, special events, and socials.

In the past individuals interested in presenting a paper at the annual meeting were required to submit their application on paper. The packet typically consisted of: six copies of the official submission proposal form, three copies of a 100 to 150 word abstract, six copies of a two to three page summary (three with author identification and three without), two 3 by 5 index cards with certain information, and four postage-paid, self addressed return envelopes. These materials were used by the Program Chair, Associate Program Chairs, and Division Chairs for the proposal's blind peer-review, and the preparation of the meeting program and abstracts book.

The MWERA Board of Directors decided to allow proposals to be submitted either on paper, in the traditional way, or over a World Wide Web site for the 1998 conference. For a variety of reasons it was decided not to allow e-mail proposal submissions (the most important being the inability, through e-mail, to insure a uniformity of submission materials). Instead, a web form was created (and tested in both Netscape Navigator version 4 and Internet Explorer version 4) to be used as the primary means of proposal submission. This form was linked (via ODBC) to a Microsoft Access 97 database, the result being that electronic submissions were entered directly and immediately by the web server into the appropriate fields in this database. This process, it was hoped, would greatly reduce the need for reformatting, retyping, and the bulk (but not all) of the error checking typically associated with processing paper submissions. Microsoft's IDC/HTX technology, using under Internet Information Server (IIS) version 4.0 on a Windows NT 4.0 server, was used for this purpose. This technology provided a straightforward and efficient means of entering and retrieving information between the database and the web browser. Active Server Page (ASP) technology was added later for database searching and program retrieval.

The Call for Proposals, circulated on paper and on the web site, provided information about both methods of submission, and interested parties were encouraged to try using the electronic submission alternative. Electronic submissions were enabled 120 days prior Call deadline (April 1, 1998). This deadline was eventually extended to the end of April, with the final proposals being received by the Program Chair in early May.

Method

The on-line database contained all of the information submitted by each proposer, including: the principal presenter's name and address, the names and institutional affiliations of any co-presenters, the title of the proposed presentation, detailed information about the proposed presentation, and the proposal abstract and summary text. Proposals submitted electronically were automatically entered into this database; those submitted on paper were typed into the database (all items except for the longer summary text) by the Program Chair's staff. The system automatically recorded the date of initial proposal receipt, how the proposal was submitted (on paper or electronically), and whether or not the proposal was eventually accepted for presentation at the conference. Additional data fields detailing the paper and session scheduling, chair and discussant information, and presenter information was added later to the database, allowing the single data file to contain the full information for the entire conference.

Selected fields, minus any personal identifying information, were extracted from the database in mid-July immediately following the finalization of the meeting's program. These data were transferred to SPSS for Windows (version 8) for analysis.

Results

A total of 193 proposals were submitted for the MWERA–98 conference: 108 (55.9%) on paper and 85 (44.1%) electronically. Slightly more than half of proposers still preferred the traditional paper method of submission, although a sizable number had opted for the electronic form.

Cross tabulations were run to see if differences existed between the on-paper proposers and the electronic proposers on a number of characteristic proposal elements. The first of these considered the division to which the proposal was submitted. Division K received the largest number of proposals both on paper and electronically, while Division F received the fewest. There was not a statistically significant different between the rates of submission to the different division ($\chi^2 = 10.208$, $df = 11$, $p = .512$). The desired format of presentation (paper, roundtable, symposium, workshop, or alternative session) was also examined. Traditional paper presentations were the most desired format, forming 72.5% of the total submissions, although there were also no statistically significant differences related to method of submission ($\chi^2 = 4.477$, $df = 4$, $p = .345$).

The status of the proposer, whether a member of MWERA or a student, was next examined. More non-MWERA members (38.8%) than members (27.8%) submitted proposals electronically, although this difference was not statistically significant ($\chi^2 = 2.639$, $df = 1$, $p = .104$). The number of student electronic proposers was split, with 52.1% preferring the paper format and 47.9% using the electronic format ($\chi^2 = .389$, $df = 1$, $p = .533$).

Statistically significant findings were only discovered in two of the comparisons that were made. The first examined proposals by state address of the principal presenter. MWERA–98 received proposals from principal presenters residing in 20 different states. Only electronic proposals (14 total) were received from individuals living in Colorado, Georgia, Minnesota, Missouri, New Jersey, Pennsylvania, South Carolina, and Texas, while only on-paper proposals (16 total) were received from individuals in Kansas, North Dakota, South Dakota, Tennessee, and Virginia. Proposals were received in both formats from the remaining seven states. This difference is statistically significant ($\chi^2 = 33.512$, $df = 19$, $p = .021$). One possible explanation for this is the location of the MWERA annual conference, held for the past several years in Chicago, Illinois. The electronic only states tended to be those the furthest geographically from Chicago, while the paper only states are located somewhat closer. Why this geographic distance should matter to proposers is puzzling, given the number and reliability of overnight mail services available.

The second statistically significant finding concerned the date the proposals were received. The first proposal (which was submitted on paper) was received 55 days before the Call deadline. Two distinct peaks of proposals were then received at eight days before the deadline (7 proposals) and two days before the deadline (20 proposals). Additional proposals were received on paper over the five days following the deadline, with most coming in the next day (16 proposals) or five days later (17 proposals). There was then a sharp drop-off of paper submissions until the 29th day after the call (the day before the extended call deadline) when another group of submissions arrived (7 proposals). This is in contrast to the electronic submissions, 29% of which (25 proposals) arrived on the deadline date. Only six additional electronic proposals were received as the largest group on the 26th day after the original call deadline. This difference was significant ($\chi^2 = 139.723$, $df = 333$, $p < .000$).

Length of proposal titles, number of words in the abstract, number of co-authors, proposal descriptor(s) selected, and proposal acceptance rate were also compared between proposals submitted on paper and those submitted electronically. No other statistically significant differences were found.

Discussion

The experiences of the Mid-Western Educational Research Association 1998 Program Planning committee show that electronic submission is a viable means to receive proposals for a regional meeting. While it required additional work to set up and maintain the web site used to collect the electronic submissions, the results seem well worth the extra effort. A large number of the MWERA–98 proposers chose to use the electronic proposal format, a method that saved meeting planners considerable time as these submissions' critical information did not have to then be hand entered into the meeting database. The electronic submissions were essentially indistinguishable from those submitted on paper, except for the states from which they came from and the dates on which they arrived. These two significant differences may have some implications for future program planners as they consider both marketing their regional meetings outside of their traditional geographic boundaries, and scheduling the staffing of the processing of received proposals.

An additional benefit to the program committee was evident at the production of the Program (a special issue of the *Mid-Western Educational Researcher*) and Presentation Abstracts book (a compilation of all abstracts accepted to the conference). In prior years the information for these two items had to all be typed into a computer, or cut and pasted together by hand, by program committee staff. This year due to the number of electronic submissions, which went directly into the database, that work was cut almost in half. Further, since the information was in a database (as opposed to a word processing file) it was very easily sort, selected, and merged into the necessary formats for both printed items. It is estimated that this alone saved almost four weeks of production effort by the program committee staff. This also allowed the final production of these items to be put off several additional weeks each while still meeting their respective deadlines, resulting in fewer changes necessary for the Program Addendum handout.

Unsolicited comments concerning the electronic submission process received from electronic proposers were uniformly positive and encouraging. Most indicated that they enjoyed being able to "cut-and-paste" from their word processor directly into a web form, not having to type cover sheets and index cards, and being able to use the web site to check on the status of their proposal. Only one person reported experiencing a difficulty in submitting electronically, and that was eventually tracked down to their use of an extremely old version of a web browser (one that did not support form processing completely). Comments from paper proposers were also positive. Many reported having used the web site to check on the status of their proposals even though the original submission was made on paper. During the months following the close of the Call for Proposals the site has received over 4,600 "hits" of users searching the database for locate sessions and papers of interest.

Other state and regional organizations will be considering providing electronic proposal submissions in the years to come. The results of this research should reassure those meeting planners of the popularity of this alternative to traditional on-paper submissions. Its relative ease of implementation, time saving features, and power to provide additional on-line information will make electronic submissions and databases more popular in the coming years. Program Chairs and committees, and Association Boards of Directors, should be reassured that proposal quality appears not to be affected by the type of submission medium, and that the rates of submissions by different constituencies to different divisions are likewise not different. There are numerous reasons why electronic submission would be inappropriate as the sole means of proposal submission; however, a parallel system of web-based and paper-based proposal submissions does seem to meet the needs of many MWERA members while simultaneously easing the burden of program production (for the Program Chair and Committee) and providing additional immediate, up-to-date information for potential meeting attendees.

Mid-Western Educational Researcher

Call for Special Editors

The Mid-Western Educational Researcher is a scholarly journal that publishes research-based articles addressing a full range of educational issues. The journal also publishes literature reviews, theoretical and methodological discussions that make an original contribution to the research literature, book reviews, and feature columns. There are four issues of the journal published annually. The Summer issue is the program for the Annual Meeting.

Recently, the editorial advisory board recommended that the Autumn issue each year should be devoted to a special topic. Specifically, all articles in the Autumn issue should explore a topic of general interest in education and research, each focusing on a different aspect of the topic.

The journal is now seeking individuals interested in serving as special editors for Autumn issues for 2000–2002. In order to be considered as a special editor, please provide the following information in a 1-2 page proposal.

1) The special topic you wish to explore, and different viewpoints or perspectives which contributed articles may take. Include an explanation for why this is an important topic for the journal to explore and why it would appeal to the readership.
2) How you plan to solicit manuscripts for the issue. If you expect to invite manuscripts, from whom will the manuscripts be solicited? Do you expect to run a call for manuscripts in an issue of the journal?
3) Your background experience in authoring educational research and in editing, reviewing, and publishing journal manuscripts.

Each special issue should contain 40 typeset pages of copy, or about 6-8 manuscripts depending on length. Final manuscripts should be submitted to the editorial team in hard copy and on disk no later than July 15 of the year of publication for processing and printing.

The editorial team, in conjunction with the incoming editors, will make final decisions on the appointment of special editors. Questions regarding the journal or the roles of the special editor should be directed to the current editors.

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The History of MWERA and the Role and Scope of Its Historian

Thomas S. Parish
Kansas State University

Background

The Mid-Western Educational Research Association (MWERA) has an exciting history which commenced in the 1970s through the concerted efforts of those educational researchers who were instrumental in founding our association. About two decades later, MWERA was still up and running, but memories of its early and middle developmental years were in danger of gradually fading.

To address this situation, the MWERA Board of Directors commissioned Theresa (Terri) Strand and Charles (Andy) Anderson, former colleagues at ETS and long time members of MWERA, to conduct an historical study of the association. Early on these individuals identified the need to establish MWERA's archives. The extensive collection of association documents gathered and maintained by Charles Anderson, who served as MWERA's Treasurer/Executive Officer from 1980 through 1994 underwent systematic review and restructuring into the current MWERA archives, and eventually served as the basis for the completed historical study.

Historian/Archivist's Role. As MWERA's first historian/archivist, Dr. Terri Strand served as project director in organizing and assembling MWERA's archives and preparing the final report of the Association's historical study. Ensuing responsibilities include collecting, maintaining, and analyzing relevant documents; updating the documentation of the MWERA archives on an ongoing basis; and providing products and services targeted to the information needs of the association, including preparation of periodic historical documents and studies.

Scope of the Archives. Holdings of the MWERA archives are classified within the following content categories:

1) Archives Guides and Summaries
2) Official Documents
3) Constitution/Bylaws
4) Governance, Operations, and Membership
5) Minutes of Governance Meetings
6) Financial Statements and Budgets
7) Annual Conferences
8) Journals and Newsletters
9) Historic and Other Important Documents
10) Association Relationships
11) Election Mailings
12) Multimedia Holdings

The collection of documents in the Archives Guides and Summaries were prepared to provide a historic record of the many MWERA members who have served MWERA over the years. The documents include chronological listings of all MWERA presidents, secretaries, members-at-large, treasurers/executive officers, editors, council members and the years they served.

Additionally, detailed information was assembled concerning MWERA's annual conferences, including: dates, cities, and co-sponsoring organizations, invited speakers and their topics, and the titles of numerous professional training workshops and their presenters. Multimedia holding include a variety of photographs, audio cassettes, and videotapes.

Accomplishments

The major accomplishments of Terri Strand, our current Historian/Archivist, have been the preparation of the historical study and the assembly and documentation of the MWERA Archives. The study, *MWERA: Promise and Fulfillment-Historical Study of the Association from Its Early Years Through 1994,* was initially published in the fall 1997 issue of the Mid-western Researcher (Volume 10, Number 4).

Related accomplishments include preparation of a detailed MWERA timeline, which covered the pioneering spirit of the seventies, challenges of the eighties, and organizational changes occurring during the nineties.

Other accomplishments by Terri Strand include analysis of MWERA membership data generated by Charles Anderson for 1984 through 1994; content analyses of historic documents, including MWERA's articles of incorporation, constitutional changes, and correspondence; and supportive services for MWERA's presidents, executive officers, association journal editors, and the 1994 conference videotape producer. Planning activities for 1999 and beyond are currently underway.

Obviously, Terri has already done some very important things for MWERA, and her fondest wish is to continue doing so for the foreseeable future. To do this, however, she really needs everyone's help. So if Terri contacts you requesting information, or if you believe that you possess valuable information that may assist her in her historian/archivist role, the Board of Directors of MWERA implores you to provide her with such information in a timely fashion. Truly, if we will all do our share, Terri will do hers too, and MWERA will certainly benefit as a result.

The Mid-Western Educational Research Association Gift Membership

A gift membership has been given to you, ______________________________

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Your name is now included as a member in one of the most recognized, well respected, educational research groups in the United States and Canada. Your **one year membership** includes a subscription to the ***Mid-Western Educational Researcher***, the Association's journal that highlights research articles, features, interviews, and Association news. Members pay reduced registration fees for the annual meeting held in Chicago in October. This conference attracts many nationally recognized leaders in educational research. Enjoy your membership.

✂- -

Thank you for providing your colleague, student, or friend with a special one year gift membership to the Mid-Western Educational Research Association. It is a gift of professional involvement that is sure to be appreciated throughout the year. To give your gift membership fill out the top portion of this card and use it to inform the recipient of the gift membership; then fill out the bottom portion of this card and mail it with your check to: **Jean W. Pierce - Dept EDCSE - Northern Illinois Univ. - DeKalb, IL 60115**

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(continued from inside front cover)

As one reviews this history of the College of Education and Allied Professions, it becomes evident that three factors influenced its history. First is the focus. What stands out is the consistency of the mission centered on collaboration with local schools and agencies to prepare teachers for area schools with an urban emphasis. Second, the college has a continuing succession of strong faculty who have provided leadership and vision. Third is success in faculty research and service.

From very humble beginnings, the College of Education and Allied Professions has evolved into a college of over 4,500 students spanning 80 programmatic options at four separate degree levels. It has been recognized for quality of instruction and cutting edge in programming. The faculty, staff and students of the college are proud of their heritage. By all objective criteria the college has never been stronger in terms of quality of its programs, quality of its faculty, quality of its students, support from the university, support from the community, sponsored research, service activities and national reputation.

As the new millennium is approaching the College of Education and Allied Professions is poised to accept the challenges of 21st Century teacher preparation. By requiring a strong liberal arts foundation, coupled with rigorous teacher training, the College has taken its place among other distinguished institutions that produce tomorrow's educational leaders.

Mid-Western Educational Researcher

Call for Feature Writers

The *Mid-Western Educational Researcher* is a scholarly journal that publishes research-based articles addressing a full range of educational issues. The journal also publishes literature reviews, theoretical and methodological discussions that make an original contribution to the research literature, and feature columns. There are four issues of the journal published annually.

The journal is now seeking writers interested in contributing to three of its feature columns.

1) The **Conversations** column involves an in-depth, focused interview with a prominent person. Columns are generally up to 3000 words in length and must be accompanied by a photograph of the person interviewed.

2) The **Book Review** column focuses on a notable book, either a new publication or a "classic." Columns are generally up to 2500 words in length.

3) **Voices in Education** is a column which assembles pithy quotes or opinions from prominent persons or representative groups of individuals. The column addresses a range of topics with wide appeal to the education community and readership. Use of telephone or e-mail to assemble quotes or opinions is recommended for accuracy. Columns are up to 2000 words in length and assume a casual format.

The editors of the journal make final decisions on the acceptance and publication of feature columns. Questions regarding the journal or the submission of feature columns should be directed to the editors.

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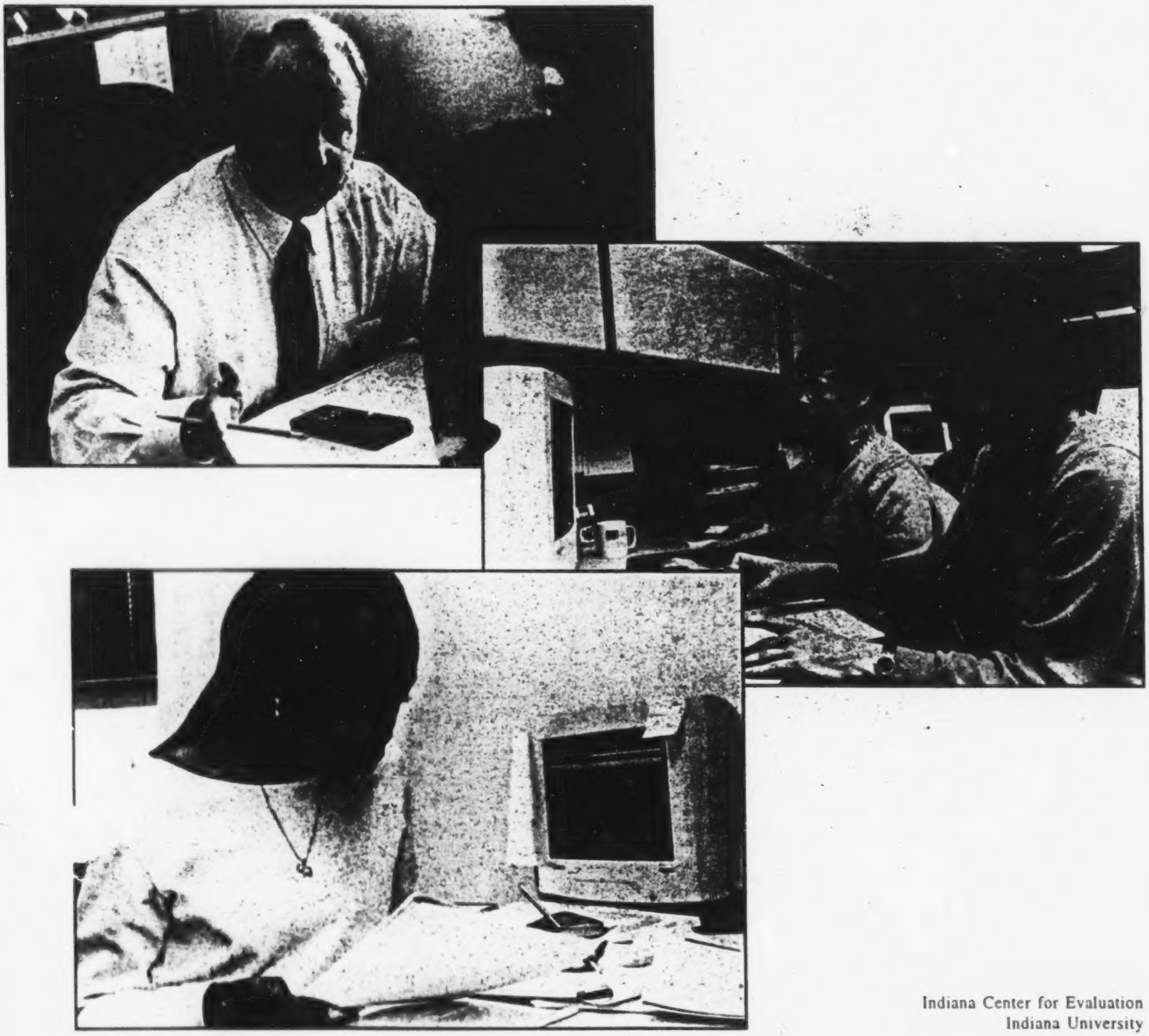

Indiana Center for Evaluation
Indiana University

On the Cover

Evaluation is increasingly expected of agencies within the educational and human service sectors. However, few of these agencies possess the experience or resources necessary to conduct efficient and meaningful evaluations of their programs.

To address this need, the Indiana Center for Evaluation was established in the fall of 1996 as a collaborative venture between the Indiana University School of Education and Junior Achievement of Central Indiana. Under the direction of Dr. Kim Metcalf, the Center's primary mission is to promote and support systematic program evaluation, particularly in the educational and nonprofit sectors. Drawing upon the expertise of faculty and staff from a variety of disciplines, the Center seeks to assist those organizations moving toward organized investigation of their programs to enhance quality. As a result, a focus of the Center's work is on helping its clients develop, implement, and maintain on-going, structured program evaluation for continuous improvement.

The Center is an independent agency, devoted to the application of multiple research methods to the practical evaluation of services and programs. Its clients have reflected a variety of private, public, and governmental agencies, primarily in education and social services.

Among the range of the Indiana Center for Evaluation's current projects are a 15-year longitudinal evaluation of more than 1.5 million participants in Junior Achievement programs in central Indiana; a multi-year evaluation of the impact of the controversial Cleveland Voucher Program for the Ohio Department of Education; and a broad-scale evaluation of the Anchor Schools program for migrant students in Florida, Georgia, Tennessee, and South Carolina for the U.S. Department of Education.

Pictured on the cover (from top): Kim Metcalf, Director; Rebecca Gross, Administrative Assistant to the Director and Amy Craig, Office Support Staff; JaDora Sailes, Junior Achievement Post-Doctoral Fellow.

Information for Contributors to the Mid-Western Educational Researcher

The *Mid-Western Educational Researcher* accepts research-based manuscripts that would appeal to a wide range of readers. All materials submitted for publication must conform to the language, style, and format of the *Publication Manual of the American Psychological Association*, 4th ed., 1994 (available from Order Department, American Psychological Association, P.O. Box 2710, Hyattsville, MD 20784).

Four copies of the manuscript should be submitted typed double-spaced (including quotations and references) on 8½ x 11 paper. Only words to be italicized should be underlined. Abbreviations and acronyms should be spelled out when first mentioned. Pages should be numbered consecutively, beginning with the page after the title page. Manuscripts should be less than 20 pages long. An abstract of less than 100 words should accompany the manuscript.

The manuscript will receive blind review from at least two professionals with expertise in the area of the manuscript. The author's name, affiliation, mailing address, telephone number, e-mail address (if available), should appear on the title page only. Efforts will be made to keep the review process to less than four months. The editors reserve the right to make minor changes in order to produce a concise and clear article. The authors will be consulted if any major changes are necessary.

Manuscripts should be sent with a cover letter to:

Deborah L. Bainer, *MWER* Co-Editor
1680 University Drive, Ohio State University at Mansfield, Mansfield, OH 44906

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The Use of Tests of Statistical Significance

Thomas R. Knapp
Ohio State University

Abstract

This article summarizes the author's views regarding the appropriate use of significance tests, especially in the context of regression analysis, which is the most commonly-encountered statistical technique in education and related disciplines. The article also includes a brief discussion of the use of power analysis after a study has been carried out.

Although statistical significance tests have come under repeated attacks for several years, most recently in psychology by Jacob Cohen (1994), Frank Schmidt (1996), and others, there are times when they should be used and there are times when they should not be used. What follows is an attempt to identify those times as far as educational research is concerned.[1]

A brief history of the controversy, 1970-1998

In 1970 there appeared a book edited by sociologists Denton Morrison and Ramon Henkel, entitled *The Significance Test Controversy*. That book consisted of chapters written by people on both sides of the issue, but most of the authors were "con", i.e., they had little or nothing good to say about significance tests. Several of those chapters had originally appeared elsewhere in books or as journal articles, and some of the comments were downright nasty. In his chapter, for example, Paul Meehl characterized the researcher who uses significance tests as "a potent but sterile intellectual rake who leaves in his merry path a long train of ravished maidens but no viable scientific offspring" (Meehl, 1970, p. 265).

For the next couple of decades things were relatively quiet, except for the occasional raising of a few new voices (e.g., Carver, 1978). Significance tests continued to be used by researchers who felt they were warranted and continued to be eschewed by researchers who felt they were not. Then in the 90s, prompted by articles written by Cohen (1990, 1994) and Schmidt (1992, 1996), the controversy was rekindled. It led to the creation of a task force in psychology to deal with the matter and to the publication in 1997 of another entire book devoted to the "pros" and "cons" of significance testing, edited by Lisa Harlow, Stanley Mulaik, and James Steiger, entitled *What If There Were No Significance Tests?* (See Levin, 1998 and Thompson, 1998 for reviews of, and reactions to, that book.) Schmidt had advocated the discontinuation of **all** significance tests in favor of confidence intervals around obtained effect sizes, and the discontinuation of **all** narrative literature reviews in favor of meta-analyses for pooling results across studies. At the time of the writing of this article—Autumn, 1998—the APA Task Force had not issued its final report, but its interim report in 1997 suggested that Schmidt's extreme positions would not be supported.

The situation in educational research has closely paralleled the recent developments in psychology. Starting in 1993 with an entire issue of the *Journal of Experimental Education* devoted to the topic of significance testing (again, "pros" and "cons", but mostly "cons"—see esp. Carver, 1993 and Thompson, 1993), there appeared subsequent articles by Thompson (1996), Robinson and Levin (1997), and others, culminating in a debate on the topic at the April, 1998 annual meeting of the American Educational Research Association in San Diego.

The position taken here

This writer takes a very simple approach to the controversy. If there is a hypothesis to be tested and if a statistical inference is warranted (for a probability sample drawn from a well-defined population), then significance testing should be used. (The terms "hypothesis testing" and "significance testing" are regarded as interchangeable, but see Huberty, 1993 concerning the distinctions that are sometimes made between the two.) If there is no hypothesis to be tested but a statistical inference is warranted, then interval estimation (constructing a confidence interval around a point estimate) should be employed. If a statistical inference is not warranted (when the obtained data are for a full population or for a non-probability sample), whether or not there is a hypothesis to be tested, descriptive statistics should suffice.

One can often get hypothesis testing "for free" by using interval estimation (if the hypothesized parameter is not in the confidence interval, reject it), but there are situations where that is not the case (see Dixon and Massey, 1983, p. 93). When dealing with percentages, differences between percentages, or ratios of percentages, for example, the standard errors for the hypothesis-testing approach and the interval-estimation approach may differ considerably (see Knapp and Tam, 1997). For odds ratios associated with 2x2 contingency tables the significance test is straightforward, whereas the determination of the corresponding confidence interval is extremely complicated (see Fleiss, 1981, pp. 71-75).

Regression analysis

It is indeed curious that the adversaries in the significance testing controversy rarely use examples involving regression analysis (Steiger and Fouladi, 1997 is a notable exception), which is the statistical technique that is most commonly used in the behavioral sciences.[2] There are many textbooks (e.g., Cohen and Cohen, 1983; Darlington, 1990; Marascuilo and Levin, 1983; Pedhazur, 1997; Stevens, 1996) and monographs (e.g., Achen, 1982; Berry, 1993; Berry and Feldman, 1985; Breen, 1996; Fox, 1991; Hardy, 1993; Iversen, 1991; Jaccard, Turrisi, and Wan, 1990; Jaccard and Wan, 1996; Langbein and Lichtman, 1978; Lewis-Beck, 1980; Newbold and Bos, 1985; Schroeder, Sjoquist, and Stephan, 1986)[3] that treat regression analysis. Hypothesis testing is given much greater emphasis than interval estimation in those sources. Most never even mention confidence intervals or devote very little space to their use (despite the fact that such intervals are routinely provided in the output of certain computer programs), suggesting that significance testing is the preferred approach. Of all of these authors, the only one who provides any sort of extended discussion of the advantages and disadvantages of confidence intervals vs. significance tests is Achen (1982), and he doesn't take a stand on one approach in preference to the other. Most users of regression analysis apparently are content with testing hypotheses concerning correlation coefficients (simple and multiple), regression coefficients (standardized or unstandardized), intercepts, and the like.

Some comments regarding observed power

There has recently been a disturbing tendency (disturbing to this writer and to a few others—see, for example, Goodman and Berlin, 1994, and Zumbo and Hubley, 1998) in some textbooks, journal articles, and computer programs to report the "observed power" for a study (see, for example, Munro, 1997 and the output for some of the analysis of variance programs in SPSS). Power is, or at least should be, an a priori concept. Researchers know (or should know), GOING INTO a study, the probability of getting a statistically significant finding (given the alternatively hypothesized effect size, the specified alpha level, and the sample size), i.e., the probability of rejecting a false null hypothesis in favor of a true alternative hypothesis. What some people are arguing for these days is the calculation of the obtained effect size (that's fine) and the determination of the corresponding "observed power" (that's not), COMING OUT OF a study. The rationale goes something like this: I'm willing to take the obtained **sample** effect size as a good estimate of the **population** effect size, see what power I had for that effect size for the sample size I drew, and determine what sample size I would need in my next study in order to have the power I want. That sort of reasoning seems terribly convoluted and an inappropriate use of power analysis as an aspect of statistical inference. Those who are interested in a counter-argument regarding the concept of "observed power" are urged to read the articles by Falk, Hogan, Muller, and Jennette (1992) and by Taylor and Muller (1995) and come to their own conclusions about the defensibility of that concept. The first of those articles is a substantive article concerning an experiment involving a fixed sample size (a priori power was not involved in its determination) of 26 people randomly assigned to two treatments, for which the research hypothesis is null, i.e., the theoretical position is that there is no treatment effect. (They found none and the study was terminated before the originally anticipated date.) The second article is a methodological article that advocates the calculation of obtained power for the Falk experiment for varying effect sizes close to null, and the construction of one-sided confidence intervals around those powers AND one-sided confidence intervals for the associated sample sizes.

Steiger and Fouladi

In defending their preference for interval estimation in multiple regression analysis (they also advocate the reporting of observed power), Steiger and Fouladi (1997) give the example of a confidence interval for the squared multiple correlation coefficient. The obtained R^2 in a sample of 45 observations on six variables (five independent and one dependent) was .40, which was statistically significant at the .001 level; the limits of the 95% confidence interval for the population R^2 were .095 and .562. They claim that the inference provided by the interval estimate is much more informative, albeit less impressive, than the inference provided by the significance test. That may be, but the price that was paid to get it (computationally complex calculations that are not included in standard statistical packages—but are available from Steiger and Fouladi) may not be worth it. This writer personally prefers the significance test, for a **given** null hypothesis, a **given** alternative hypothesis, a pre-specified alpha, and a sample size that is appropriate for a **given** desired power. Cohen's well-known and readily-available power book (Cohen, 1988) contains all of the necessary formulas and tables. There are also several readily-available software packages for carrying out such analyses.

Conclusion

This article has tried to summarize when significance tests (hypothesis tests) should be used and when they should not. Traditional regression analysis is one of the contexts in which tests of statistical significance appear to be most defensible and for which the corresponding interval estimation procedures are either not appropriate or are unnecessarily complicated.

It could be that many educational researchers are "closet Bayesians". They would like to be able to determine the probability that the null hypothesis is true, given the data, but in classical statistical inference that is not possible, so they must settle for the probability of getting the data (or something even more extreme), given that the null hypothesis is true (see Cohen, 1994). That's when they get frustrated and are prone to making all sorts of mistakes in interpreting significance tests. But the cure for this is not the abandonment of significance tests; the cure is to use them properly and interpret them properly OR to come out of the closet and become a Bayesian (see Pruzek, 1997 and Berger, Boukai, and Wang, 1997 regarding those alternatives).

Footnotes

[1] It might be argued that educational research is just like psychological research, sociological research, or research in any of the other social sciences, but many years ago Gowin (1972) claimed that it is (or at least should be) distinctive. Education is primarily interventionist. Our society doesn't have to develop various curricula, pay some teachers more than others, etc., but it has chosen to do so. It is therefore appropriate that controlled experiments and large correlational studies be carried out in order to determine to what extent such things "work".

[2] In their summary of statistical techniques used in reports of studies published recently in the *American Educational Research Journal*, the *Educational Researcher*, and the *Review of Educational Research*, Elmore and Woehlke (1998) indicated that multiple regression analysis was used in 148 out of 1906 articles (7.8 %), but if you add to that the 99 articles that used bivariate correlation, the 70 articles that used a t test, the 221 articles that used the analysis of variance or covariance (all of which can be subsumed under regression analysis—see, for example, Cohen, 1968) the total is 538 out of 1906 (28.2 %).

[3] These monographs were all categorized under the "Regression" grouping in a recent Sage University Paper.

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The Value of Multimethod Qualitative/Quantitative Research Methodology in an Educational Program Evaluation: A Case Study

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Abstract

This paper presents the case of an evaluation of a literacy-based public school classroom intervention that had been implemented without initial regard for subsequent evaluation, to examine the value of a multimethod qualitative and quantitative approach. We show how this evaluation challenge was addressed using both techniques, and how they complement each other to create richer understandings. Given the small number of participants in and the brevity of the intervention, the finding of quantitative results that support the very positive qualitative results is encouraging. Thus, the multimethod qualitative/quantitative approach appears to have been a useful and informative one in such an applied setting.

Introduction

There are situations in this imperfect world when it is necessary to evaluate a program or intervention under circumstances that would seem to make such an evaluation impractical. In this paper we explore one such situation concerning a literacy-based intervention in urban elementary schools. It uses a case study approach in an exploration of the use of multimethod qualitative/quantitative techniques that might be useful if applied where evaluation had not been foreseen but was later required.

In natural settings such as public schools or municipal entities an intervention is often designed and implemented without incorporating explicit evaluative elements. This is regretfully so although, with some foresight, mechanisms for evaluation could have been planned to have been an integral part of the intervention. For example, often in such situations a baseline of the target dependent variables is neither established nor are initial conditions documented. Without baseline data, it is difficult *post hoc* to determine what changes the intervention has effected. Moreover, independent and confounding variables are rarely controlled such that the effects of the intervention can be distinguished from other influences on the parameters of interest. Consequently, it can be a challenging and even frustrating process to credibly evaluate the intervention's effects.

In one case experienced personally by one of the authors in 1977, nearly three billion dollars had been invested by the Law Enforcement Assistance Administration in projects and interventions in police departments and municipalities. When Congress some years later required documentation of the effects of these programs, a plausible evaluation could not be done because forethought had not been given to evaluation during the design of the intervention. For example, *a priori* measurements of desired outcomes (where they had even been made explicit!) rarely had been taken. Thus, it was difficult or impossible to demonstrate what outcomes could be legitimately attributed to a given program or intervention.

Qualitative research techniques permit retrospective studies with a rigor similar to those studies carried out concurrently with the intervention (Bogdan and Biklen, 1998). Consequently qualitative researchers may not see the lack of measurements of initial conditions or the omission of an *a priori* evaluation plan as a concern. In contrast, quantitative research depends on some type of inferred gain due to an independent variable (Newman and Benz, 1998), in order to perform statistical analyses and find mathematical significance. However, sponsors and funding agencies may more often be interested in clear, unambiguous quantitative data than understanding process and nuance when considering their policy decisions (Bogdan and Biklen, 1998). Therefore, for them the lack of quantitative evaluative components may be a major issue.

In this paper we will present the case of an evaluation of a literacy-based public school classroom intervention that had been implemented without initial regard for subsequent evaluation, as an example of the value of both the qualitative and quantitative approaches in an applied setting. It will show how this evaluation challenge was addressed using both qualitative and quantitative techniques. Finally, the use of this multimethod model will be examined to ascertain the differential information afforded by its qualitative and quantitative components.

The Challenge

We evaluated an intervention consisting of an educational writing process known as Classroom Publishing or Bookmaking (Marzollo, 1991). Classroom Publishing had been introduced in two Midwestern urban elementary schools, one a predominately low income inner-city school (Urban School) and the other a science magnet inner-city school (Science Magnet). At Urban School, 278 students in nine classes from grades one through four were introduced to Classroom Publishing. A more widespread intervention had been in place at Science Magnet, where 582 students in eighteen classes from grades kindergarten through five participated. The length of the intervention prior to the evaluation had been brief: one and a half school years.

Classroom Publishing is intended to improve student's writing, reading and language skills. The process is highly contextual in nature, immersing its participants in a literacy-rich environment. It encourages children to develop their creative and expressive skills as they typically write and illustrate books for an audience beyond their classroom (Domsky, 1990; Vacca, Vacca, and Gove, 1995). Some proponents believe that the process of Classroom Publishing generalizes to broader thinking strategies and to subjects beyond language and communication (Zemellman, Daniels, and Hyde, 1993).

The challenge was to evaluate the efficacy of Classroom Publishing in the target urban schools without the benefit of an initial provision within the intervention for evaluation. Thus, *a priori* measures and baseline were not available. Consequently, a triangulation approach (McMillan, 1996;Newman and Benz, 1998) was designed that employed both qualitative and quantitative strategies. The combination of methods was constructed to extract the greatest practical meaning from the data to get the clearest possible understanding of the value and effectiveness of the intervention.

Considerations

In the past the preferred approach used to analyze the results of an intervention has been primarily quantitative (Shaker, 1990), in which descriptive and inferential statistics are applied to data that can be quantified.

An alternative approach to the analysis of the results of an intervention is qualitative, in which data are viewed from a qualitative rather than quantitative perspective. Descriptions of pre- and post-intervention conditions are contrasted, with inductive reasoning applied to judge what relations among them seem reasonable, logical and appropriate, i.e., credible.

Both quantitative and qualitative approaches have their adherents, bodies of knowledge and places in research and evaluations. In a sense they reflect alternative perspectives on the nature of reality (Firestone, 1987). In this specific evaluation, the lack of appropriate pre-intervention measures as well as limited control imposed by field conditions restricted the applicability of the quantitative approach, as preferred as it might be by the intervention's sponsor. The quantitative approach was used in a limited way due to the circumstances described; it then became an adjunct to qualitative methods. Both perspectives were anticipated to complement each other.

Evaluation Issues

Given these considerations, an evaluation for this classroom intervention was constructed. According to Newman and Deitchmnan (1983), the keys to a "good evaluation" are in answering, among others, these questions (selected due to their particular relevance to this study):

1. What are the purposes of the evaluation?
2. Can these purposes be assessed?
3. What potential effect will the evaluation have on the project?
4. Do the evaluations reflect the concerns and interests of all the interested parties associated with the project?

In this case, both the project implementers and the schools' teachers and administrators were consulted in answering these questions before this evaluation was initiated. All parties agreed that the purpose of the evaluation was to build a case, if possible, for continued funding for the intervention. All parties believed that the basis for this case should be the improvement in academic accomplishment of the student participants, and that improvement could be gauged. Finally, all agreed that the continued funding of the project was in the best interests of the students based on their anecdotally-based perceptions of the evaluation's effects. The input from administrators and teachers contributed to the guidelines for developing the evaluation plan in order to maximize evaluative credibility (Newman and Deitchman, 1983). However, the positive bias of these parties towards the program was clear.

The resulting evaluation plan was to provide evidence of the intervention's effectiveness in support of grant-seeking proposals to provide continued funding for the Classroom Publishing process. Thus, in response to Newman and Deitchman's (1983) questions above:

This was to be an objectives-based study per the taxonomy of Stufflebeam and Webster (1983), where the purpose is to determine whether objectives have been achieved.

Since it was determined that quantitative methods alone would be insufficient (given the lack of intervention-specific pretest measures) to evaluate the comprehensive effects of Classroom Publishing on student thinking and behavior, a range of qualitative data-gathering procedures were designed.

The evaluation would likely have a significant effect on the future of the project as continued funding would be at least in part affected by the findings of this evaluative study.

Finally, the qualitative strategies were designed to gather data from teachers, parents, students and administrators, to ensure that all four groups of stakeholders were represented.

Primary Concern: Validity

In constructing an evaluation, Hedrick, Bickman, and Rog (1993) assert that it is important to plan an analysis carefully to ensure an efficient study that answers the critical research questions investigated. Indeed, Newman and Deitchman (1983) assert "One has to look at the objectives and identify the most relevant methods of measuring them in terms of practicality and validity. The validity must be considered not just in terms of tests but also in terms of credibility to the community involved... if the objectives or criteria are not perceived to be relevant to people with different interests, as in the multiple stakeholder approach, there is no way of achieving credibility" (p.294). In this evaluation case, a predominately qualitative approach was anticipated to be useful in that it likely accessed the richest content; the qualitative data were to be complemented and ideally supported by the available quantitative data. As McMillan (1996) points out, "If the results of several methods of collecting data agree, the finding is judged to be credible" (p.251).

Further, from the quantitative perspective this study was a clear example of ex post facto research, where "the investigators decide whether one or more preexisting conditions have caused subsequent differences between subjects who experienced different types of conditions (the phrase ex post facto means 'after the fact')" (McMillan, 1996, p. 185). McMillan goes on to emphasize that the researcher should select subjects to be as similar as possible except for the independent variable(s) being studied. Because the participants in the classroom publishing process had already been determined, the researchers in this study had to find "control groups" as similar as possible to those participants. However, in compensation, ex post facto research does provide an opportunity to study effects in a natural setting (Wiersma, 1995), increasing the perceived credibility of the results and their acceptance by practitioners. After much analysis and reflection, we selected a combination of quantitative and qualitative methodes to evaluate the effectiveness of Classroom Publishing in these two urban schools. The constituent groups affected by or concerned with the intervention were identified: students, teachers, and parents. A collection of methods to assess qualitative data from these groups was designed. Then, the available quantitative data were identified and data matching and analysis procedures prepared. Unfortunately, the available quantitative data very were limited, not designed for this study and subject to significant confounding, and not necessarily of high validity in this context.

Methodology

Four types of data, three qualitative and one quantitative, were assembled for this evaluation plan. First, a series of brief, tightly structured group interviews was held for the teachers who participated in the Classroom Publishing process to capture their views and ideas toward the value and effectiveness of this process. In this method, the facilitator asks a probe question and then supports the discussants' process. In this particular variation the facilitator records the group's responses (in this case on 3"x5" cards placed in view of the group) and then organizes them into related clusters or narratives as appropriate (Kuleck and Knight, 1988). The nature of the process used creates consensus. The probes used in the teachers' focus groups were:

1. What did you like about Classroom Publishing?
2. What did you **not** like about Classroom Publishing?
3. What would you change?

Second, a brief, tightly focused questionnaire was administered to parents of participating children to gather qualitative data about parental views toward the value and effectiveness of Classroom Publishing. The parent questionnaire probes used were:

1. Did you see your child's finished book? What did you think about it?
2. Do you think Classroom Publishing helped your child with reading, writing and language? Why or why not?

Third, participating children were invited to comment in writing on their Classroom Publishing experience. Two classes did so, one with letters to the Classroom Publishing instructor and the other by writing and publishing a book containing their feedback.

Fourth, standardized test results were used to determine what effect participation in Classroom Publishing had on student writing skills, using standardized data from the State Fourth Grade Proficiency Test. For one school, classes that participated in Classroom Publishing could be contrasted with those that did not. For the other school, because all the classes in one grade participated, a demographically matching school that did not participate in Classroom Publishing was identified for comparison purposes.

Evaluation Results

Qualitative Data

Qualitative data: Teachers

Data were collected and recorded using structured group interviews with teachers whose students participated in Classroom Publishing. Sixteen teachers from Science Magnet (of the eighteen participating in the intervention) and nine teachers from Urban School (of ten) attended the sessions. The procedure used was an iterative, interactive real-time synthesis of the typological analysis and constant comparison protocols described by LeCompte and Preissle (1984). At the end of each session, the process notes and their emergent patterns were reviewed with the teacher group to ensure the accuracy of the data and their consensus with regard to them.

The teachers from both schools were extremely enthusiastic about the use of Classroom Publishing. The focus

Table 1
Teacher Qualitative Data

Basic Skills

- "Classroom Publishing fosters (the) ability to write complete sentences."
- "Classroom Publishing helps prepare for standardized reading tests" (mentioned in both groups).
- "Classroom Publishing reinforces skills, enforces rules, e.g., grammar" (also mentioned in both groups).
- "Classroom Publishing extended their vocabulary."
- "Classroom Publishing fostered comprehension skills."
- "Through Classroom Publishing, kids learned to edit."

Motivation, pride and self esteem

- "Kids couldn't believe their own progress."
- "Classroom Publishing fostered self-esteem through accomplishments."
- "Classroom Publishing demonstrated everybody can do something—well" (mentioned in both teacher groups).
- "Classroom Publishing so motivated some kids they are on their third book." (also mentioned in both groups).

Development of thinking processes and strategies

- "Classroom Publishing made kids organize thoughts."
- "Classroom Publishing fostered sequencing: beginning, middle, end."
- "Classroom Publishing fostered thinking through to conclusion."
- "Classroom Publishing helped to develop understanding of fantasy vs. reality."
- "Classroom Publishing helped develop understanding of the Main Idea."
- "Classroom Publishing helped kids learn the parts of books; they now begin a book by checking out the publisher, illustrator, etc."
- "Classroom Publishing's influence extended even to math, e.g., calculating the percentage of pages that were pictures."
- "Classroom Publishing-fostered skills carried through to creative writing and social studies."

group responses from both schools were pooled under three domains: basic skills, motivation, and thinking skills.

Basic Skills

Consistently, one of the stated objectives of Classroom Publishing was to help students develop their basic skills. The teacher groups indicated that the process was broadly successful in doing so. Representative responses are found in Table 1.

Motivation, pride and self esteem

An often-mentioned outcome of Classroom Publishing in the teacher groups might be termed motivation, pride and self-esteem. Classroom Publishing was reported to be so motivating that children elected to spend time on this process to the extent of producing two and even three books during the school year, well beyond what was expected. Some representative comments are also found in Table 1.

Development of thinking processes and strategies

Perhaps most important from the teachers' views were those related to the results Classroom Publishing appeared to have on the development of thinking processes and strategies. Examples of teacher comments are found in Table 1.

Further, Classroom Publishing's influence appeared to generalize; typical teacher responses included: "Classroom Publishing's influence extended even to math, e.g., calculating the percentage of pages that were pictures" as well as "Classroom Publishing-fostered skills carried through to creative writing and social studies."

Summary of teacher qualitative data

Teachers indicated that the greatest value of Classroom Publishing may not be in developing language skills—as vital as they are—but in supporting more general cognitive development, e.g., providing a supportive environment to enhance the development of concepts such as text structure, as evidenced by the proper use of paragraphing. More generally, Classroom Publishing appeared to develop children's overall thinking and problem solving skills while fostering teamwork and building goal orientation. Enhanced self-esteem in children was thus an unsurprising outcome.

In addition, Classroom Publishing was seen by teachers to provide a valuable means for constructive self-expression, allowing children to begin to expand their inner life to encompass the world and others around them.

Finally, teachers reported that Classroom Publishing is a process that reached students wherever they may be in their cognitive and intellectual development. Those students with a need to develop organized thinking are stimulated to develop systematic thought processes. Those children demonstrating higher order thinking found those skills enhanced and, more importantly, apparently generalized to other subject areas, including math and science.

Qualitative data: Parents

Parent data were collected via a questionnaire sent home with children from two classes in each school. At Science Magnet, 23 of 36 questionnaires were returned (two of the 23 parents noted that they had not seen their child's book and had no comment). At Urban School, 17 of 45 parents responded. Recognizing that the parent questionnaires were likely returned by parents more involved in their child's schooling and thus likely inclined favorably to the Classroom Publishing process, their comments were uniformly positive.

Among the outcomes often cited by the parents were improved reading, writing and language skills. Parents found that Classroom Publishing provided new outlets for self-expression and creativity. The parents (as had the teachers) noted that students found Classroom Publishing encouraged the constructive expression of inner thoughts and feelings; typical parent responses included: "I think it helps her to express herself and get enjoyment out of reading" and "It revealed inner thoughts expressed for the first time."

The parents also reported enjoyment from their children's products and expressed pride in them. One parent evidently shared her daughter's book more widely: "I think it was very good. I like her part about (company name) and so did my managers."

Children's enhanced self esteem as a product of accomplishment was also a noteworthy outcome as cited by parents: "...I think this is a great way to promote self esteem." "(child's name) is very excited about writing his book." "...he wants to write more books. He also reads more."

Perhaps two parents summed it up best: "I would like (child's name) involved in more projects similar to this one" and "...it will help a lot of other kids like it helped my child." Examples of typical parent comments may be found in Table 2.

Table 2
Parent Qualitative Data

Improved Reading, Writing and Language Skills

- "...it helps her to read and understand what she is reading."
- "Writing a book involved a use of spelling words known and learning new ones. Reading vocabulary was increased with a carry over to their daily tasks. Speaking skills were practiced whenever the book was read to friends, teachers, family and once to the school assembly."
- "...she did the work and used her imagination and that showed me some of the skills learned from good teaching in other words it really went in and stayed in."

Self-Expression and Creativity

- "My thought was that the book was very creative and she used a lot of thinking in order to create her book."
- "The story line was a surprise."
- "Her book was well laid out, and took some imagination for the story. The best I can remember, the spelling was correct. But I am not sure whether a lamb and a coyote will marry and live happily after ever."

Parental Enjoyment of and Pride in Children's Products

- "The finished book will be a treasure to be remembered now and in the years to come."
- "...I enjoyed reading it and have kept it for a keepsake."
- "Yes I saw his book. I think it is wonderful."
- "...I'm very proud of ____'s book and can't wait to show it off."
- "I think it was a wonderful short story."
- "I think it was great."

Qualitative data: Students

Two classes responded to a request for feedback about Classroom Publishing. The group of students from Science Magnet responded in the form of letters to the Classroom Publishing instructor. The other class, from Urban School, actually wrote and published a book containing their feedback! Examples from both of these sources are found in Table 3. One student's comment succinctly summarized the Classroom Publishing process:

> I like Classroom Publishing because it helps me in reading and writing. I like it when we first started making our stories. We started out with a story map to help us organize our ideas. Then we took our journal home and started writing our stories. When mine was finished I brought back my story to school and had (the instructor) help with my spelling. Then when I was done I wrote it on good paper and went over the words with black marker. I started illustrating my story. Then I bound it together and made a book.

It is clear that the students who responded validated the comments and opinions of their teachers and parents. The

Table 3
Student Qualitative Data

Letters to the Classroom Publishing Instructor

- "I liked it because we go to draw and make up our own words. I am happy because I was the Author and Illustrator."
- "I had fun making a book and publishing a book. You also taught me to do I what I couldn't do. Now I can make (it) through this grade because I remembered what you said."
- "This book publishing Program is great! My parents loved my book. My Mom asked me if she could take it to work. So if the Program could go on, I would be very happy to write a book again."
- "I didn't know how to write a book that good until you came to our class. I like to make books now."
- "I used to not even write a paragraph so you should know how good and helpful you were to me."
- "I used to hate writing stories. Now I can use my imagination. When we had to follow the chart, each time my mind would open wider and wider... Know (*sic*) when I go to my grandmother's I write all the time."

From the Classroom Publishing Book

- "I like that it helps my writing, drawing and creativity."
- "I learn a lot an (*sic*) I know a lot about indenting and paragraphs."
- "My mother was very proud of how I improved on my paragraphs. I liked illustrating and writing the book."
- "I like classroom publishing because it helps me read, wrote, learn how to draw, spell and work hard."

children's enthusiasm and energy for Classroom Publishing were undoubtedly responsible for the enthusiasm seen from the teachers and parents for the process.

Quantitative Data

While the qualitative data were strong in their endorsement of the process, there still remained the question of whether Classroom Publishing did in fact contribute to objectively measurable improvements in basic skills, particularly writing. The research staff of the City School District was consulted to determine possible alternatives for developing quantitative data. After finding that very little quantitative data were available, the evaluators and research staff determined that the only available measure of Classroom Publishing's effect, if any, would be the standardized State Fourth Grade Proficiency Test as administered by the City School District.

Fortunately, the State Test included specific sections to assess writing and reading skills. Only the scale scores from these sections were made available to be used as a quantitative measure of student writing, reading and (by inference, language) skills. Unfortunately, only the fourth grade would be represented at each school, comprising but 19 of the 278 student participants at Urban School (one classroom out of a total of 58 fourth graders) and 102 of the 582 at Science Magnet. The choice was then not which measures and procedures to use, but whether to proceed with what was available or abandon the quantitative side of the model altogether. The former course was chosen in order to strengthen the evaluation and satisfy the sponsor's needs for compelling data.

The two schools participating in Classroom Publishing, while both inner city schools, differed significantly from each other. "Science Magnet" is a magnet school; parents must apply for their children to attend. "Urban School" is a more typical inner city school, adjacent to a large County Metropolitan Housing Authority facility. We may reasonably infer that the students at Science Magnet benefited from a higher level of parental involvement when compared with that of Urban School. As parental involvement is an important contributor to student success, Science Magnet's relatively higher level of student success is not surprising. Consequently, for the purposes of this evaluation we deemed it advisable to consider the results of the two schools separately.

Classroom Publishing was implemented across the entire Fourth Grade at Science Magnet. Consequently, at Science Magnet, it was not possible to compare the performance of students who participated in Classroom Publishing with those who did not participate. Consequently, another school, Computer Magnet, was suggested by staff of the City School District to be highly comparable to Science Magnet with regard to demographics and geographic location. For example, the current poverty rate (as measured by participation in the School Lunch Program) at Computer Magnet is 88.41%, while the corresponding rate for Science Magnet is 90.46%.

When comparing the writing performance results from the Fourth Grade Proficiency Test writing scale from the two magnet schools, we found that 70% of the Science Magnet students (who had experienced Classroom Publishing) achieved proficiency (defined as a score of 4 or better) compared with 57% of those at Computer Magnet (who had not).

Table 4

Expected Writing Score Chi-Square Test between Schools from the Fourth Grade Proficiency Test (1996 Science Magnet c.f. 1996 Computer Magnet)

Classes	Non-Proficient Students	Proficient Students	Percentage Passed
Observed Pass-Fail Distribution for Classroom-Publishing Classes (Science Magnet, 1996)	31	71	70%
Expected Pass/Fail Distribution based on No-Classroom-Publishing Classes (Computer Magnet, 1996)	43.86	58.14	57%

Chi-Square Probability (Yate's Correction) = .08

Table 5

Expected Reading Score Chi-Square Test between Schools from the Fourth Grade Proficiency Test (1996 Science Magnet c.f. 1996 Computer Magnet)

Classes	Non-Proficient Students	Proficient Students	Percentage Passed
Observed Pass-Fail Distribution for Classroom-Publishing Classes (Science Magnet, 1996)	21	81	80%
Expected Pass/Fail Distribution based on No-Classroom-Publishing Classes (Computer Magnet, 1996)	38.76	63.24	62%

Chi-Square Probability (Yate's Correction) = .02

Table 6

Expected Writing Score Chi-Square Test within School from the Fourth Grade Proficiency Test (1996 c.f. 1995 Test Results, Science Magnet)

Classes	Non-Proficient Students	Proficient Students	Percentage Passed
Observed Pass-Fail Distribution for Classroom-Publishing Classes (Science Magnet, 1996)	31	71	70%
Expected Pass/Fail Distribution based on No-Classroom-Publishing Classes (Science Magnet, 1995)	26.52	75.48	74%

Chi-Square Probability (Yate's Correction) = .46

Table 7

Expected Reading Score Chi-Square Test within School from the Fourth Grade Proficiency Test (1996 c.f. 1995 Test Results, Science Magnet)

Classes	Non-Proficient Students	Proficient Students	Percentage Passed
Observed Pass-Fail Distribution for Classroom-Publishing Classes (Science Magnet, 1996)	21	81	80%
Expected Pass/Fail Distribution based on No-Classroom-Publishing Classes (Science Magnet, 1996)	26.52	75.48	74%

Chi-Square Probability (Yate's Correction) = .39

Table 8

Expected Writing Score Chi-Square Test within School from the Fourth Grade Proficiency Test (1996 Test Results, Urban School)

Classes	Non-Proficient Students	Proficient Students	Percentage Passed
Observed Pass-Fail Distribution for Classroom-Publishing Classes (Urban School, 1996)	13	6	32%
Expected Pass/Fail Distribution based on No-Classroom-Publishing Classes (Urban School, 1996)	12.67	6.33	33%

Chi-Square Probability (Yate's Correction) = .13

Table 9

Expected Reading Score Chi-Square Test within School from the Fourth Grade Proficiency Test (1996 Test Results, Urban School)

Classes	Non-Proficient Students	Proficient Students	Percentage Passed
Observed Pass-Fail Distribution for Classroom-Publishing Classes (Urban School, 1996)	7	12	63%
Expected Pass/Fail Distribution based on No-Classroom-Publishing Classes (Urban School, 1996)	6.33	12.67	67%

Chi-Square Probability (Yate's Correction) = .612

As Table 4 shows, the χ^2 probability of .08 approaches significance. The corresponding reading proficiency percentages as shown in Table 5 were 80% at Science Magnet and 62% at Computer Magnet, with a χ^2 probability significant at the .02 level.

As a cross check, comparisons were then made between the observed frequencies of Science Magnet students (all who had experienced Classroom Publishing) who were found proficient and non-proficient in writing and reading in the Classroom Publishing class, and the predicted frequencies based on the 1995 proficiency testing for Science Magnet fourth graders. With this comparison, the χ^2 probabilities were not significant as shown in Tables 6 and 7. This comparison was chosen to keep the school constant as compared with the Science Magnet and Computer Magnet pairing; however the two groups were comprised of students from different years, confounding what effect the Classroom Publishing intervention might have had.

Comparisons were also made between the observed frequencies of Urban School students class found proficient and non-proficient in writing and reading in the Classroom Publishing class, and the predicted frequencies based on the three non-participating classes. Here the χ^2 probabilities were not significant, as shown in Tables 8 and 9. This comparison was chosen to complement the previous comparisons, in this case by keeping the year of testing and the school constant. However, the two groups were comprised of students from different classes, again confounding what effect the Classroom Publishing intervention might have had.

Summary of Quantitative Data

If Classroom Publishing were effective, we would expect to see the results of the State Fourth Grade Proficiency Test's Writing and Reading Scales to favor participating students over non-participating students. To test this, we selected two groups of non-participating students to compare with the participants from Science Magnet's fourth grade:

1. Computer Magnet fourth grade students
2. Science Magnet students from the prior year's fourth grade

Further, the students from the Urban School's two non-participating fourth grade classes were compared with the students from the Urban School fourth grade class that did participate.

The results of the analyses of both the writing and reading scale score data from the State Fourth Grade Proficiency Test revealed a significant result for the comparison of Science Magnet's Fourth Grade (all of whom participated in the Classroom Publishing process) and Computer Magnet's Fourth Grade (none of whom participated). However, when the previous year's fourth grade class at Science Magnet was used, the contrast was not significant. Likewise, the within-school comparison between the participating (in Classroom Publishing) Urban School Fourth Grade class and the two non-participating classes failed to approach significance. Therefore the quantitative data can be described as encouraging but not conclusive.

Summary of Classroom Publishing Evaluation Results

The qualitative data gathered from the teachers, students and parents in the first through fifth grade classes that participated indicate that Classroom Publishing appears to contribute to the writing competence and cognitive development of students. This appears to be true for a wide range of cognitive ability and basic skills. Thus, those students with a need to develop organized thinking were stimulated to develop more systematic thought processes. Those children demonstrating higher order cognitive processing found those skills enhanced and, more importantly, apparently generalized to other subject areas, including math and science.

Therefore, the qualitative approach yielded a positive evaluation of this Classroom Publishing intervention. However, the sponsors of the intervention were also interested in documenting quantified skill improvements that could be attributed to Classroom Publishing, in support of grant proposals. The quantitative data, writing and reading scale scores from the State Fourth Grade Proficiency Test, showed significant differences between the magnet inner-city school's participating Fourth Grade and the non-participating Fourth Grade in another, roughly matched magnet inner-city school. In the other school, comparisons of writing scale scores between the one class in which Classroom Publishing was introduced and the school's two non-participating Fourth Grade classes failed to reach significance. These results are mixed, but sufficiently encouraging to be considered supportive by the intervention's sponsors.

Discussion

Meeting the Evaluation Challenge

When Classroom Publishing in kindergarten through fifth grade classes at these two urban inner-city schools was instituted, evaluative components had been omitted. In order to construct a credible and useful evaluation of the process, we developed a set of post hoc, qualitative data-gathering procedures supported by available quantitative assessments, in this case the writing and reading assessment scales of the State 4th Grade Proficiency Examination. Each method was developed to be accessible and valid. In addition, while one site could be assessed "within school," the second site required a suitable comparison school. Another magnet school in the district served this purpose.

Hence, though the Classroom Publishing intervention in these urban schools seemed at first to be difficult to evaluate, a useful set of complementary strategies was eventually developed. The use of qualitative methods made it possible for the evaluators to ask the question, "Does Classroom Publishing work"? The quantitative methods made it possible for the evaluators to ask the question "How **well** does Classroom Publishing work?"—at least insofar as a measurable effect on standardized test scores may be concerned.

Qualitative Strategy and Credibility

Primary in any evaluation are issues of validity and credibility. With respect to the qualitative methods used, "There are no set standards for evaluation of the validity of a field research's conclusions, but this does not decrease the need to consider carefully the evidence and methods on which conclusions are based... Individual items of information can be assessed in terms of at least three criteria:

1. How credible are the informants?
2. Were statements made in response to the researcher's questions, or were they spontaneous?
3. How does the presence or absence of the researcher and/or the researcher's informant influence the actions and statements of group members?" (Becker, 1958 p.341-2)

The "informants" used, teachers, parents and students, were those best able to credibly describe the effects of Classroom Publishing in these classrooms. Further, we believe that the use of structured group interviews and open-ended questions helped insure that the responses of those from whom data were gathered were open and spontaneous. The consistency of the data indicates that the presence of the evaluator was not a significantly confounding influence (or, implausibly, that the evaluator identically influenced the focus groups and questionnaire respondents), and moreover that the triangulation (Newman and Deitchman, 1983) sought was achieved. Therefore, we concluded that the qualitative methods chosen appear to have allowed a meaningful evaluation of the Classroom Publishing intervention in these two Midwest urban schools.

Quantitative Reinforcement of Qualitative Findings

Though the quantitative data provided ambiguous results, it can be argued that the significant comparisons—that between the two magnet schools in the same year—were the most plausible. This is in view of the comparatively limited number of participating fourth grade students at Urban School (19 vs. 38 non-participating), which made the intra-school comparisons more problematic. Given the small number of participants in and the brevity of the intervention, the finding of quantitative results that support the very positive qualitative results is encouraging. Thus, the multimethod qualitative/quantitative approach in this applied setting appears to have been a useful and informative one. This result contrasts with the Head Start evaluation study that was reported by Bogdan and Biklen (1998), where qualitative methods, used in conjunction with quantitative measures, demonstrated that the qualitative results were misleading.

The Value of Multimethod Models: Issues and Opportunities

The plausibility of qualitative data can be increased by using as many appropriate sources and types of qualitative data that can be practicably gathered. This multimethod "triangulation" approach (Newman and Benz, 1998) can result in meaningful and credible results, leading to useful and practical conclusions. If the spectrum of available data sources or data gathering modalities is restricted, credibility will suffer and the utility of the conclusions will be diminished. Thus, it is incumbent on those using qualitative methods to cast their net as widely as possible. In this evaluation case, each of the stakeholder groups—teachers, parents, students and intervention sponsors—was given its opportunity to contribute to the evaluation.

Similarly, the greater the opportunity to assess quantitative data, the greater support they can give to the credibility of the qualitative findings. Of course, the inverse construction may also obtain; qualitative methods may be used to reinforce (or, in the case of the Head Start study that was reported by Bogden and Biklen (1998), repudiate), quantitative methods.

From a theoretical perspective, Newman and Benz (1998) point out that qualitative and quantitative methods are neither antithetical nor mutually exclusive. Rather, they are complementary sides of the same coin, an "interactive continuum." In this case, the evaluators endeavored to use the qualitative results to build a "theory": that Classroom Publishing facilitated the development of writing and reading skills. This "theory" was then tested using a quantitative model. While the quantitative results were only partially statistically significant, they did provide useful support for the qualitative-based "theory." The next step, of course, would be to refine the "theory" on the basis of the quantitative results, developing hypotheses to be tested qualitatively, and so on through the cycle of refinement (Newman and Benz, 1998).

In the final analysis, a useful and credible evaluation was constructed although the applied intervention was not initially designed with evaluation in mind. The sponsors of this Classroom Publishing intervention were reassured that Classroom Publishing was more than a "feel good" exercise and could pursue funding sources with both confidence and credibility.

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Multimethod Analysis of Mathematics Achievement Tests

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Abstract

Multimethod analysis of mathematics achievement tests is illustrated by combining psychometric and statistical methods in the analysis of results from the California Achievement Test-Mathematics administered to seventh-graders from North-East Ohio.

Taken into account were the category objectives and thinking skill levels defined for the two parts of the test, Computations and Concepts and Applications. The goal is to provide educational analysts results they can use in making informed decisions about teaching mathematics within local educational settings.

Data related to validity, reliability, scaling, norming, and equating are commonly provided with nationally standardized mathematics achievement tests (see, e.g., CTB/McGraw-Hill, 1986). However, the results reported for local student populations are usually limited to classical item parameters and descriptive statistics of students' scores on such tests. Additional test data at state and district levels may provide research analysts information they can use to further support their decisions about teaching mathematics in local educational environments.

The purpose of this paper is to provide information that may help in making informed decisions based on CAT-M results, by combining Item Response Theory (IRT) and statistical methods in the analysis of results from the California Achievement Test-Mathematics (CAT-M) administered to seventh-graders from North-East Ohio. This study addresses a number of questions:

1. Which IRT model fits the CAT-M data for the target population?
2. How does the CAT-M work at different ability levels?
3. Does the average item difficulty change across different category objectives and thinking skill levels of the CAT-M?
4. Is the relative standing of students the same across different CAT-M items?
5. How many items are needed per CAT-M category objective and thinking skill level in order to obtain given reliability?
6. How can students' abilities be predicted from CAT-M scores?

Method

Results from the CAT-M (CTB/McGraw-Hill, 1985) of 4135 seventh-graders from a large urban area in North-East Ohio were used. The two parts of the CAT-M, Computation Test and Mathematics Concepts and Applications Test, were analyzed separately. The Computation Test included 50 items grouped by one factor, **Category Objective** (CO), with 10 levels: (1) Subtract fractions, (2) Multiply whole numbers, (3) Multiply decimals, (4) Multiply fractions, (5) Divide whole numbers, (6) Divide decimals, (7) Divide fractions, (8) Integers and percents, (9) Subtraction of whole numbers and decimals, and (10) Addition of whole numbers, decimals, and fractions (CTB/McGraw-Hill, 1986).

The Concepts and Applications Test included 55 items grouped by two factors. The first factor, Category Objective (CO), has six levels, (1) Numeration, (2) Number Sentences, (3) Number Theory, (4) Problem Solving, (5) Measurement, and (6) Geometry. The second factor, Thinking Skill (TS), has three levels, (1) Recall and recognition, (2) Inference, and (3) Evaluation.

The IRT analysis included the calculation of (a) data fit statistics, (b) item and test characteristics,(c) students' ability scores, and (d) descriptive statistics for test scores of students with different abilities. The computer programs RASCAL (Assessment Systems Corporation, 1995a) and XCALIBRE (Assessment Systems Corporation, 1995b)were used for the IRT analysis, while SPSS (SPSS Inc., 1997) and MicroFACT (Waller, 1995) were used for the statistical analysis.

A two-way unbalanced ANOVA was conducted for the Concepts and Applications Test with two fixed factors, CO and TS, with the dependent variable being the IRT difficulty of the items. It was performed through the SPSS procedure MANOVA/METHOD = SEQUENTIAL. Of special interest was the interaction between the two factors in order to see if the difference between the average item difficulties of different category objectives varied across the three thinking skill levels.

To answer the research question related to the prediction of students' abilities on CAT-M scores, a regression analysis was conducted with the independent variable being the test score and the dependent variable being the ability score. The ability scores of all 4135 students were calculated XCALIBRE.

Generalizability theory study (G-study) and related decision study (D-study) were conducted for the CAT-M tests by the use of the GENOVA program (Crick and Brennan, 1983). For the Computation Test, students (S) were the object of measurement and items (I) represented a random facet nested within the fixed facet Category Objective (CO). Thus, the appropriate G-study design in this case was the partially nested design S x (I:CO) (see, e.g., Shavelson and Webb, 1991, p. 75). With the Concepts and Applications Test, a G-study was conducted for the partially nested design S x (I:TS), with items nested within the fixed facet Thinking Skill (TS).

Related D-studies were conducted with both the S x (I:CO) and S x (I:TS) designs for the estimation of the GT coefficients $E\rho^2$ and Φ. The **generalizability coefficient**, $E\rho^2$, is analogous to the reliability coefficients in classical test theory. It is suitable for decisions about the relative standing of students on the test scale. The **index of dependability**, Φ, introduced by Brennan and Kane (1977) as a generalizability index for absolute decisions, is suitable for criterion-referenced analysis and decisions (see, e.g., Shavelson and Webb, 1991, pp. 83-97).

Results

The IRT assumption about unidimensionality of the data was tested using MicroFACT (Waller, 1995), which performs the iterated principal factor analysis on tetrachoric correlations for binary response data. The results indicated the presence of a dominant factor underlying the students' performance on each test. For the Computation Test, 36.72% of the total variance was explained by the first factor versus 1.54 % explained by the second factor. For the Concepts and Applications Test, this ratio was 42.46 % versus 0.48% in favor of the first (dominant) factor.

The results of the IRT analysis showed that the one-parameter IRT (Rasch) model did not fit the CAT-M data. The RASCAL χ^2 fit statistic indicated misfit of 44 items from the Computation Test and 45 items from the Concepts and Applications Test, with χ^2 values of those items exceeding the critical value, $\chi^2(19)= 30.14$, at the level of significance $\alpha = .05$.

For data fit of the 2- or 3-parameter IRT models, XCALIBRE reported a standardized residual statistic for each item. This statistic is normally distributed and values in excess of 2.0 indicate misfit with a type I error rate of 0.05. The results showed that the data did not fit the 2-parameter IRT model. Standardized residuals in excess of 2.0 for 8 items from the Concepts and Applications Test and 20 items from the Computation Test were found. For each test, the data fit the 3-parameter IRT model because none of the standardized residuals exceeded 2.0.

The internal consistency reliability of each test was found to be 0.90. The information curves of the two tests are given in Figure 1. The average amount of information provided by the Computation Test was found to be 9.31 versus 7.39 provided by the Concepts and Applications Test. Thus, for the local population of seventh-graders, the Computation Test provided more accurate estimates of students' abilities as compared to the Concepts and Applications Test (see, e.g., Allen and Yen, 1979, pp. 262-267). This is especially true for students with ability scores between 0.0 and

Table 1

Item Parameter Estimates for the Computation Test

	Parameter					Parameter			
Item	*a*	*b*	*c*	PC	Item	*a*	*b*	*c*	PC
1	.43	-2.55	.14	87	26	.43	-1.37	.14	75
2	.65	-2.11	.14	89	27	1.45	.80	.20	42
3	.46	-2.00	.14	94	28	.37	.44	.17	54
4	.77	.07	.15	56	29	1.77	1.37	.12	23
5	1.64	.56	.17	45	30	1.96	1.14	.09	23
6	.67	-.90	.13	73	31	.75	-1.36	.13	81
7	.54	-.37	.13	63	32	1.00	-1.13	.12	81
8	.74	-.53	.14	68	33	.76	-.66	.11	69
9	.91	.28	.13	50	34	.95	-.58	.12	70
10	.94	.35	.14	50	35	.89	-.34	.13	65
11	.53	-2.41	.14	88	36	.86	-1.26	.13	82
12	1.65	.45	.14	46	37	.87	-1.57	.14	86
13	1.76	.80	.10	33	38	.97	-.79	.13	75
14	1.86	.42	.13	45	39	.93	-.29	.13	64
15	1.83	.67	.11	37	40	1.07	1.62	.13	23
16	.67	-1.52	.13	82	41	2.11	1.11	.13	28
17	.62	-1.80	.13	85	42	2.31	1.20	.17	30
18	.78	-1.34	.13	82	43	1.81	1.28	.17	28
19	.79	-1.13	.13	79	44	2.16	1.30	.12	23
20	.71	-.42	.12	65	45	1.48	1.12	.19	34
21	.47	-2.61	.14	88	46	.83	2.44	.16	22
22	.66	-1.17	.14	78	47	.84	1.49	.12	27
23	.71	-.61	.14	69	48	.34	-.09	.15	59
24	.91	.49	.16	48	49	.93	1.80	.16	26
25	.78	.39	.15	50	50	1.09	2.51	.09	11

Note: Used was the 3-parameter IRT model, with *a* = discrimination parameter, *b* = difficulty parameter, and *c* = "guessing"

	Parameter					Parameter			
Item	*a*	*b*	*c*	PC	Item	*a*	*b*	*c*	PC
1	.68	-3.00	.18	97	29	.91	-.94	.15	77
2	.58	-2.32	.17	89	30	.72	-.18	.18	63
3	.83	-2.50	.17	95	31	.70	-.18	.19	63
4	.93	-.41	.18	68	32	.87	.10	.16	56
5	.76	-1.70	.18	87	33	.89	.23	.17	54
6	.83	-1.81	.17	89	34	.46	.78	.19	49
7	.70	-2.01	.17	89	35	.97	-.19	.16	62
8	.76	-1.51	.18	85	36	1.26	1.09	.18	35
9	.51	-1.88	.18	84	37	.93	-.54	.17	70
10	.61	-.97	.18	75	38	.99	.64	.18	45
11	.54	-.79	.18	71	39	1.02	-.51	.16	70
12	.65	-.60	.18	70	40	.58	.10	.17	57
13	.76	-1.39	.18	83	41	.73	.67	.18	47
14	.67	-1.38	.17	82	42	.77	1.03	.17	78
15	.74	-.35	.18	66	43	.51	1.44	.17	79
16	.70	-1.10	.18	78	44	.81	-.16	.16	61
17	.56	-.72	.17	70	45	.86	.69	.21	47
18	.80	-.95	.16	76	46	1.49	.73	.14	38
19	.33	.99	.21	51	47	.90	.62	.16	45
20	1.13	-.58	.18	73	48	1.20	.91	.20	40
21	1.00	-.79	.18	76	49	.86	.56	.14	45
22	.64	-.24	.17	63	50	.88	1.61	.15	27
23	.55	.33	.19	54	51	.99	.28	.17	52
24	.56	.13	.20	58	52	1.04	2.17	.13	19
25	.62	.42	.18	52	53	.88	1.15	.16	35
26	.83	-.40	.18	67	54	1.05	1.64	.17	28
27	.79	-.74	.18	73	55	1.20	2.05	.12	17
28	.94	-1.52	.17	87					

2.0 on the logit scale, i.e. students above the average and below the top on the ability range of the target population. Beyond this interval, both tests do not work particularly well.

Table 1 provides estimates of *a* (discrimination parameter), *b* (difficulty parameter), and *c* ("guessing parameter") for the Computation Test. The table also shows the percent of correct answers (PC) for each item, based on 4135 students. The item difficulties were spread without any big gaps within the logit interval (-2.61 to 2.51). The item discrimination power varied within the relatively large interval (0.37 to 2.31). The "guessing" parameter, *c*, was quite small in magnitude and variability. This indicates that, for each item, there is small probability for students with low ability to answer the item correctly. The same pattern of findings was observed for the item parameter estimates of the Concepts and Applications Test (see Table 2).

Table 3

Test Score Means and Standard Deviations by Eight Ability Levels of the Students

Computation Test			Concepts and Applications Test		
Ability Interval			Ability Interval		
From - To	*M*	*SD*	From - To	*M*	*SD*
Below P_5 (-2.10)	11.39	3.25	Below P_5 (-1.87)	14.81	3.95
P_5 - P_{10} (-1.49)	15.75	2.35	P_5 - P_{10} (-1.34)	20.09	2.17
P_{10} - P_{25} (-.63)	19.65	2.42	P_{10} - P_{25} (-.67)	25.22	2.19
P_{25} - P_{50} (.08)	25.27	2.24	P_{25} - P_{50} (.02)	31.59	2.30
P_{50} - P_{75} (.77)	31.13	2.35	P_{50} - P_{75} (.70)	38.39	2.08
P_{75} - P_{90} (1.33)	37.50	2.29	P_{75} - P_{90} (1.41)	44.39	1.81
P_{90} - P_{95} (1.64)	42.15	1.55	P_{90} - P_{95} (1.83)	48.43	.92
Above P_{95}	45.54	1.75	Above P_{95}	51.51	1.27

Note: Given in parentheses are the values of the percentiles P_5, P_{10}, ..., P_{90}, P_{95} on the ability scale (in logits).

Table 4

Generalizability Study of the S x (I:CO) Design for the Computation Test and the S x (I:TS) Design for the Concepts and Applications Test

		Computation Test		Concepts and Applications Test	
Source of Variation	Variance Component	Estimated Variance Component	Percentage of Total Variance	Estimated Variance Component	Percentage Of Total Variance
Students (S)	σ_S^2	.0290	14	.0219	9
Items (I)	σ_I^2	.0288	14	.0624	26
S x (I:CO), E[a]	$\sigma^2_{S \times (I:CO),E}$	.1491	72		
S x (I:TS), E[b]	$\sigma^2_{S \times (I:TS),E}$			.1530	65

[a] For the Computation Test , with Category Objective (CO) fixed facet

[b] For the Concepts and Applications Test, with Thinking Skill (TS) fixed facet.

Table 3 shows means and standard deviations of CAT-M scores for students at eight ability levels. Boundaries of the ability intervals are the percentiles P_5, P_{10}, P_{25}, P_{50}, P_{75}, P_{90}, and P_{95} on the ability scale (in logits).

Table 4 shows results from the G-studies conducted for the Computation Test, with the S x (I:CO) design, and for the Concepts and Applications Test, with the S x (I:TS) design. With each of the two designs including a fixed facet, the variance due to interaction between subjects and items is inseparable from the variance due to random error in each of the variance components $\sigma^2_{S \times (I:CO),E}$ and $\sigma^2_{S \times (I:TS),E}$. It should be noted, however, that the "guessing" part of the random error variance was relatively small (see the *c*-values in Tables 1 and 2). For the Computation Test, the variance component $\sigma^2_{S \times (I:CO),E}$ accounted for the largest part of the total variance, 72% . Hence, the relative standing of students on the computation scale changes a great deal across items. This was also true for the Concepts and Applications Test where the variance component $\sigma^2_{S \times (I:TS),E}$ also explained the largest part, 65%, of the total variance. Table 5 shows D-study results about relations between number of items and reliability coefficients $E\rho^2$ and ϕ. For relative decisions with the Computation Test, for example, a reliability of .90 or above ($E\rho^2 \geq .90$) requires at least six items within each category objective of the test. Similarly, for absolute decisions with the Concepts and Applications Test, a reliability of .90 or above ($\phi \geq .90$) requires at least 30 items per thinking skill level of the test.

Table 6 shows results from the 6 x 3 two-way ANOVA, using the item difficulty as the dependent variable and the fixed factors CO and TS of the Concepts and Applications Test as independent variables. The non-significance of the main effects, CO(F(5,39) = 2.06, p = .092) and TS(F(2, 39) = 1.49, p = .237), indicates that the average item difficulty is the same across all category objectives and, separately, across all thinking skill levels. The significance of the interaction between the two factors, CO x TS(F(6,39) = 2.62, p = .031), shows that the difference between the average item difficulties of the category objectives varies across the thinking skill levels of the test.

Table 5

Decision Study of the S x (I:CO) Design for the Computation Test and the S x (I:TS) Design for the Concepts and Applications Test

Computation Test			Concepts and Applications Test		
Number of Items	$E\rho^2$	Φ	Number of Items	$E\rho^2$	Φ
1	.661	.620	6	.720	.646
2	.796	.766	10	.811	.753
3	.854	.830	15	.866	.821
4	.886	.867	20	.896	.859
5	.907	.891	25	.915	.884
6	.921	.907	30	.928	.901
7	.932	.919	35	.938	.914
8	.940	.929	40	.945	.924
9	.946	.936	45	.951	.932
10	.951	.942	50	.955	.938

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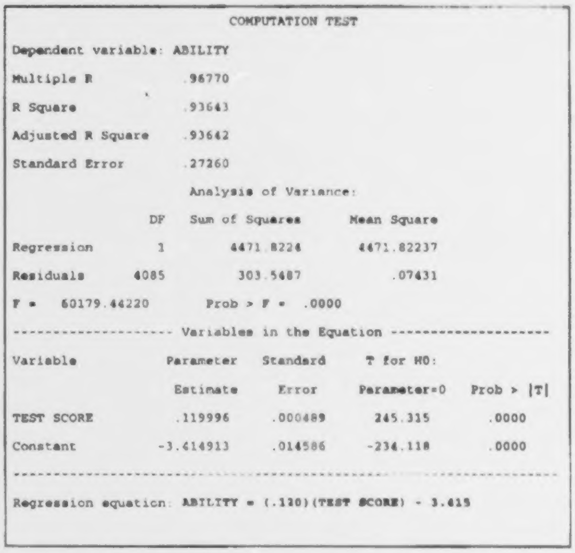
Table 6

Unbalanced 6 x 3 (CO x TS) ANOVA design with Dependant Variable the Item Difficulty for the Concepts and Applications Test

Source	SS[a]	df	MS	F	p-value
Model	29.34	13	2.26	2.23	.027
Category Objective (CO)	10.41	5	2.08	2.06	.092
Thinking Skill (TS)	3.02	2	1.51	1.49	.237
CO x TS	15.91	6	2.65	2.62	.031
Within + Residual	39.47	39	1.01		
Total	68.82	52	1.32		

[a] SEQUENTIAL Sums of Squares Source via SPSS (Windows, v. 6.1).

Regression analysis was conducted in an attempt to find a simple model for predicting students' abilities on CAT-M scores. Students with ability scores beyond the interval bounded by ±3.0 on the logit scale, representing about 1% of the 4135 students for each CAT-M test, were excluded from the regression analysis in order to avoid the "outliers" effect. Figure 2 represents an edited SPSS output from the simple linear regression analysis conducted for the Computation Test. The Multiple R of 0.97 indicates an extremely high positive correlation between observed and predicted ability scores of the students. Also, $R^2 = 0.94$ shows that 94% of the differences in the ability scores of the students are explained by differences in their test scores. The regression equation in Figure 2 provides simple and significant prediction of the abilities on test scores. Its graphical representation is given in Figure 3. Almost identical regression results were found for the Concepts and Applications Test (see Figure 4). With this test, 97% of the students' ability variance was explained by the test score variance and, again, the simple linear regression provided highly significant prediction of the abilities on test scores (see, also, Figure 5).



```
                         COMPUTATION TEST
Dependent variable: ABILITY
Multiple R            .96770
R Square              .93643
Adjusted R Square     .93642
Standard Error        .27260
                      Analysis of Variance:
                DF   Sum of Squares     Mean Square
Regression       1        4471.8224      4471.82237
Residuals     4085         303.5487          .07431
F =   60179.44220       Prob > F =  .0000
------------------- Variables in the Equation -------------------
Variable           Parameter   Standard     T for H0:
                    Estimate     Error     Parameter=0   Prob > |T|
TEST SCORE           .119996    .000489      245.315       .0000
Constant           -3.614913    .014586     -234.118       .0000
------------------------------------------------------------------
Regression equation: ABILITY = (.120)(TEST SCORE) - 3.615
```

Figure 2. Edited SPSS output from the simple linear regression of ability scores on test scores for the Computation Test.

Discussion

Along with the standard information about CAT-M results, provided to local educational analysts, there are additional findings that should be taken into account for the target population of seventh-graders. In the context of the research questions in this study, several findings are important.

First, the Rasch and 2-parameter IRT models did not fit the data for the CAT-M with the target population. This finding suggests that the items differed in discriminating seventh-graders with different ability scores and that there were "guessing" effects, although they were found to be relatively small. The CAT-M data did fit the 3-parameter IRT model for the target population.

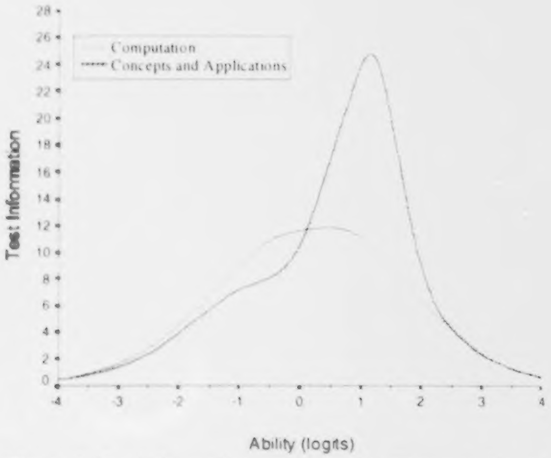


Figure 1. Test information curves for the Computation and Concepts and Applications Tests.

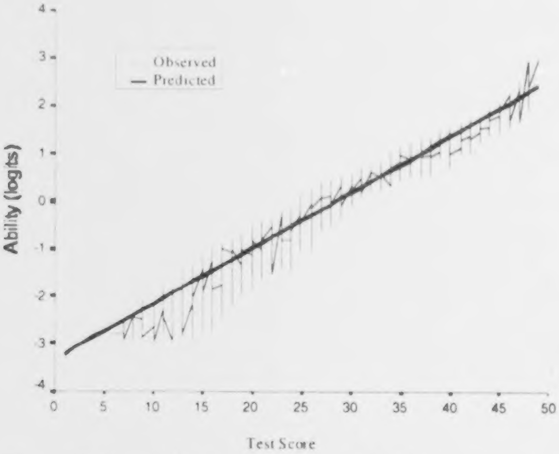
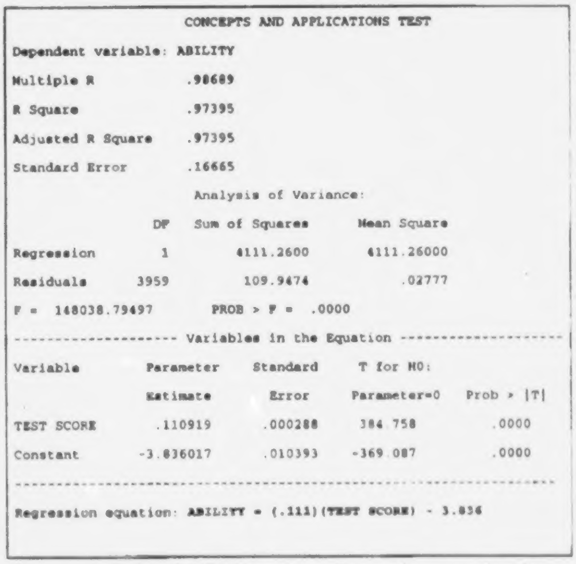


Figure 3. Simple linear regression of ability scores on test scores for the Computation Test.



```
                    CONCEPTS AND APPLICATIONS TEST
Dependent variable: ABILITY
Multiple R          .98689
R Square            .97395
Adjusted R Square   .97395
Standard Error      .16665
                      Analysis of Variance:
                  DF   Sum of Squares      Mean Square
Regression         1        4111.2600       4111.26000
Residuals       3959         109.9474           .02777
F =  148038.79497       PROB > F =  .0000
------------------- Variables in the Equation ------------------
Variable          Parameter    Standard     T for H0:
                  Estimate       Error      Parameter=0   Prob > |T|
TEST SCORE         .110919     .000288      384.758         .0000
Constant         -3.836017     .010393     -369.087         .0000
----------------------------------------------------------------
Regression equation: ABILITY = (.111)(TEST SCORE) - 3.836
```

Figure 4. Edited SPSS output from the simple linear regression of ability scores on test scores for the Concepts ans Applications Test.

Second, the Computation Test provided more information and, hence, more accurate estimates of students' abilities than the Concepts and Applications Test, within the range from 0.0 to 2.0 on the logit ability scale. Beyond this interval (i.e., for students with ability below the average and for high ability students) neither test worked particularly well. The results in Table 3 show how students at eight different ability levels performed on the CAT-M.

Third, for the Concepts and Applications Test, the difference between the average difficulty of items from different category objectives varied a great deal across the thinking skill levels. Fourth, the G-study results show that the relative standing of seventh-graders on the CAT-M scale changed a great deal across different items of the test. Fifth, the D-study results provided information about the number of items required to obtain desired reliabilities for both relative and absolute (criterion-related) decisions. Sixth, the regression analysis provided a simple and highly significant model for the prediction of students' abilities on CAT-M scores.

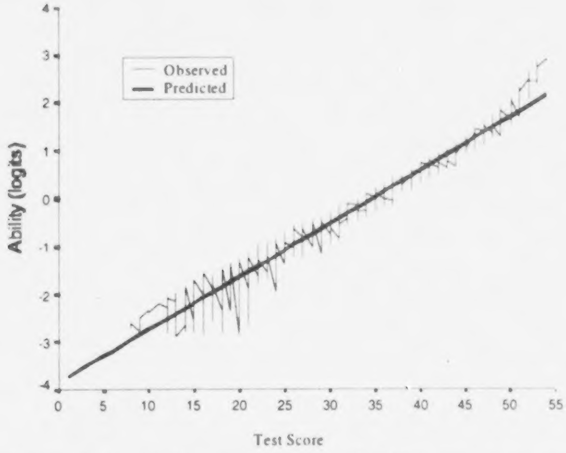


Figure 5. Simple linear regression of ability scores on test scores for the Concepts and Applications Test.

In conclusion, reports and interpretations of results of local student populations on nationally standardized mathematics are commonly based on descriptive statistics of test items and student total scores. The analysis illustrated in this article may help local educators and test analysts in interpreting test results by taking into account the ability levels of the students and the interaction between test factors such as item difficulty, category objectives, and thinking levels. In general, it provides valuable feedback for making informed decisions about teaching mathematics within local educational settings. Future research in this area will focus on relationships between psychometric and cognitive characteristics of the items. Also, one can apply the multimethod approach in the analysis of results from science, language, and other standardized tests administered to students representing large local populations.

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Book Review

Conducting Survey Research in the Social Sciences

John M. Linacre
University of Chicago

Newman, Isadore & McNeil, Keith. (1998) *Conducting Survey Research in the Social Sciences.* Lanham, Maryland: University Press of America.

Summary

This books outlines a constructive step-by-step approach to survey research, presented as 23 questions concerning issues to be addressed in the formulation, administration and reporting of surveys. Answers to these questions are presented as points to be considered and lists of readings. Good, practical exemplars are lacking.

Text

"The purpose of this text is to present basic concepts and general guidelines for those who are interested in conducting a survey" our authors state in their Preface. Do they succeed in their purpose?

There are numerous components that comprise the survey process. To simplify matters, the book presents scenarios involving three prototypical researchers, a psychologist, an administrator and a curriculum evaluator. This is a good approach. Would that our authors had walked us step-by-step through three actual survey projects to their successful completion—but no, they never rise to the challenge. Instead, they give us platitudes, "Once he (the psychologist) feels comfortable ..."

In fact, the book seems to regard a survey as an academic exercise performed to meet some requirement (such as a dissertation), rather than as a serious endeavor to accumulate knowledge. Graduate students, rest assured: diligently, no *slavishly*, follow the eight steps laid out in this book, and your Committee will be impressed! Your sheepskin is as good as inscribed. But your dissertation will languish on the Library shelf along with thousands of others, never to be read again.

Let us, however, imagine that we have a serious intent to gain useful knowledge. We need help and turn to this slim volume to provide it. There are 65 pages of concepts and guidelines, and a further 40 pages of examples and reference material. The 65 pages are divided into 8 chapters and presented as answers to 23 questions. This makes the text a brisk read and information easy to find.

So what information is provided? Two chapters and six appendices are devoted to specifying the research question and writing the survey instrument; three chapters and 2 appendices to defining the target population, selecting a sample and collecting data; one chapter and 4 appendices to writing the report; and two chapters and one appendix to support resources. This understates the role of resource material in this book. Each of the 23 questions, e.g., "Question 14: What survey procedure should I use?", is provided with a supplementary reading list. In the case of Question 14, the "answer" is 1½ pages long and the additional reading list another page. Indeed to resolve the many issues raised in the "answer" the serious researcher will need to refer to the reading list. Fortunately, the 23 separate reading lists are condensed into a 3½ page general reference list slipped between the Chapters and the Appendices. One book mentioned frequently in the lists is Rossi et al.'s (1983) *Handbook of Survey Research.* Plan to have ready access to that volume.

Where is our book most lacking? "At the present stage of development of the survey method, ... question wording [is] the Number One problem" (Payne, 1951, p. 4–5). In the chapter entitled, "Develop the survey", our authors provide three question exemplars:

(i) "Have you ever had the problem of not being able to stop smoking?"

(ii) "How often have you had the problem of anxiety?"

(iii) An interview question, "Since your hospitalization coverage doesn't cover any of the problems that we have discussed, how much will you be willing to pay to try to solve the problem?"

Asking convoluted, syntactically and semantically dubious questions such as these is certain to make the respondents' answers uninterpretable and the results of the survey unreproducible.

Where this book shines, however, is in its sparkling collection of 27 pithy quotations, sprinkled throughout the text. Only 2 or 3 were familiar to me. Though several didn't relate to their contexts, all were memorable!

Is this book worse than other similar works? No. Is it a useful starting point? Yes. *"All therefore whatsoever they bid you observe, that observe and do; but do not ye after their works: for they say, and do not."* (Matt.)

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Payne, S. L. (1951) *The Art of Asking Questions.* Princeton: Princeton University Press.

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Featured Speakers

Dr. John Sikula

Dr. John Sikula is in his 23rd year as Education Dean having served at Indiana University Northwest, California State University, Long Beach, National University in San Diego, and currently at Ashland University in Ohio. He is past national president of the Association of Teacher Educators and was senior editor of Macmillan's Handbook of Research on Teacher Education, Second Edition in 1996.

"Be an ARC – An American Reconstructioneer of Culture"

Be an ARC – An American Reconstructioneer of Culture is a presentation resulting from Dean Sikula's work during the mid 1990s compiling and editing 48 chapters for the Second Edition of Macmillan's Handbook of Research on Teacher Education. Dr. Sikula draws from the work of some 200 leading educators across the country and beyond as they examine what needs to be done to improve schooling in America.

Dean Sikula makes and defends two declarations:

1. Improvement in schooling and teacher education in the United States will be successful to the extent that educators establish via research and make known to the public and to budget controlling authorities the clear relationships which exist between investment in education and productive citizenship.
2. Until educators become more proactive, demanding, political, and willing to serve as American Reconstructioneers of Culture (ARCs), our educational institutions will continue to drift with the tide of mediocrity as resources flow to other more visible and vocal areas.

Dr. Donald R. Cruickshank

A long-time member of MWERA, Dr. Donald R. Cruickshank retired from The Ohio State University in 1992. He has remained active pursuing his scholarly and research interests in research on teaching, particularly teacher clarity; research on teacher education; reflective teaching; the study of teacher problems and their recreation using simulations; and most recently, developing a framework for considering the question, What makes teachers good?

This prolific scholar has to his credit, publications such as, *The Act of Teaching*, *The Preparation of America's Teachers*, *Research That Informs Teachers and Teacher Educators*, *Reflective Teaching*, *Reflective Teaching: The Preparation of Students of Teaching*, and *Teaching is Tough*.

"What Makes Teachers Good?"

The question, Who is a good teacher? has perplexed us for decades. It is unlikely that we will ever achieve consensus on an answer to it any more than we would to questions such as, What is good music? or What is a good job? It seems preferable to accept, or at least debate, that there are several kinds of good teachers. Consequently, six conceptions of 'What makes teachers good' are presented and developed.

Special Highlights

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What Are State Agencies Doing Anyway?

A panel discussion on the status of educational reform efforts in three mid-western states. Topics include educational standards, performance-based licensing, performance-based assessment and approval of professional programs in higher education, and the national and state report cards on teacher preparation.

Graduate Students – Special Topics

A series of informal sessions will be provided for the expressed purpose of developing knowledge and skills in special interest areas for graduate students and new faculty members. Topics may include publish or perish, grant writing, and finding and securing that first faculty position.

Division Meetings with Invited Speakers

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General Information

- Workshops will be scheduled throughout the four-day meeting
- Attendees can choose from a variety of session formats, including:
  - ✓ Paper Presentation (3 –5 papers per session with a Session Chair and Session Discussant);
  - ✓ Roundtable Discussion/Poster (for heightened presenter-attendee interaction);
  - ✓ Symposium (focusing on specific topics from a variety of perspectives);
  - ✓ Workshop (longer-term focused work on a topic of interest); and
  - ✓ Alternative Format (with a range of different time lengths and interactive activities).
- Sessions will be organized around themes of 11 different division:

  A – Administration and Leadership
  B – Curriculum Studies
  C – Learning and Instruction
  D – Measurement and Research Methodology
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The Mid-Western Educational Research Association (MWERA) offers scholars and practitioners, researchers and instructors, and educators from all levels and perspectives an opportunity to share ideas with others in a supportive environment of collaboration. MWERA is the place to hear and discuss the latest in educational ideas, and to make new contacts and renew existing acquaintances, in a spirit of professional friendship and collegiality!

We hope you'll join us!

The Status of High School Scheduling in Illinois

Donald G. Hackmann
Iowa State University

Abstract

The purposes of this descriptive study were to determine the types of scheduling models being used in Illinois high schools, identify scheduling trends, and determine reasons for adopting scheduling changes. The principals of Illinois' 635 public high schools were surveyed, and a 100% response rate was achieved after two rounds of questionnaires were mailed and telephone surveys were conducted of remaining nonrespondents. Nearly three-fourths of Illinois high schools utilize a traditional daily-period schedule, but trends indicate increasing numbers of schools are adopting or considering block-of-time models. Principals implementing block-of-time schedules noted a variety of reasons for this change, including the following: increasing student electives, improving the quality of education, implementing varied instructional strategies, increasing time for learning, and improving the building climate.

An issue being debated by many of the nation's high school faculties is the effectiveness of their approaches to scheduling the school day. Some teachers may cherish a uniform, unchanging, daily teaching routine, while others may want instructional creativity they are provided under highly dynamic, flexible scheduling approaches. Some scheduling models may readily lend themselves to a school's staffing and grouping needs but may be extremely rigid, thereby restricting the most effective instructional uses of time. Other models, while providing instructional flexibility for faculty and students, may actually be logistical nightmares for administrators who are attempting to efficiently schedule large numbers of class offerings.

Ubben and Hughes (1997) define the schedule as a "plan to bring together people, materials, and curriculum at a designated time and place for the purpose of instruction. Its basic purpose is to coordinate the requirements laid down by previously reached decisions regarding curriculum, instruction, grouping, and staffing" (p. 216). An effective schedule provides teachers with the ability to make instructional decisions based upon the needs of their students, without being hampered by barriers such as too little or too much time allocated for instruction or rigid inflexibility.

In 1994 the National Education Commission on Time and Learning reported, "The degree to which today's American school is controlled by the dynamics of clock and calendar is surprising" (p. 7). Faced with concerns arising from such reports as *A Nation at Risk* (National Commission on Excellence in Education, 1984) and *Prisoners of Time* (National Education Commission on Time and Learning, 1994), teachers and administrators have gained an increased understanding of the connection between effective time usage and maximized learning opportunities. There is a renewed interest in identifying schedules that effectively facilitate academic growth, and many of the nation's secondary schools have adopted or are actively considering new scheduling models.

Secondary Scheduling Models

Scheduling approaches for high schools can take a variety of forms, depending on the unique needs of each school, and can be divided into the following categories: a) daily period schedules; b) block schedules, including alternating-day models and semester schedules; c) modular/flexible scheduling; and d) combination models. Each model is briefly described below.

Daily Period Schedules

In this scheduling approach, the school day is separated into six, seven, eight, or more equal divisions of time, known as "periods," with each period lasting approximately 42-55 minutes in length. Canady and Rettig (1995b) report that the average daily period length is 51 minutes. Under a daily schedule, students are typically provided 3-5 minutes of time to move from class to class. Frequently, delivery of instruction strictly adheres to departmental classifications: for example, language arts concepts are presented within the English curriculum and science concepts are the property of the science department (Hackmann and Valentine, 1998). The daily period schedule has been the secondary school model of choice for the majority of the 20th century.

The primary advantage of the daily period schedule is that the school routine normally remains unchanging, each day throughout the entire school year. This routine facilitates the acclimation of students into the school environment, as well as providing for ease of lesson preparation for teachers.

The effectiveness of the daily period schedule has been questioned in recent years. Critics assert that the school day is excessively fragmented, that students have little time for in-depth study of subject matter, and that it is difficult for teachers and students to make connections across subject matter lines (Canady and Rettig, 1995a). Additional disadvantages include the following: 42-55 minute periods reinforce the use of the lecture method and restrict instructional creativity; with students loads of 160 or more and up to five preparations daily, teachers find it difficult to personalize instruction; and both students and teachers feel the school day moves at an extremely hectic pace (O'Neil, 1995).

Block Schedules

Block-of-time schedules divide the school day into larger timeframes, providing the opportunity to hold class sessions ranging between 85-100 minutes in length, with fewer classes meeting each day and correspondingly fewer class changes (Cawelti, 1994). Larger blocks of time provide flexibility for a variety of learner-centered activities, and teachers are encouraged to reduce their reliance on the lecture method. The Coalition of Essential Schools (Sizer, 1986) advances the metaphors of "student as worker" and "teacher as coach," noting that students should be actively—not passively—involved in the learning process, with teachers guiding their development instead of primarily engaging in direct instruction.

Although block-of-time models can vary greatly in format, two approaches are most commonly used: the alternating-day schedule and the 4x4 semester model. With the alternating-day schedule, also called the A/B schedule, students receive instruction in one-half of their courses on alternate days and complete these courses in one academic year. For example, a student will enroll in classes 1-4 and 5-8 in an alternating-day arrangement (Hackmann, 1995a).

Two variations of this model include: a) the six-block A/B model, in which students enroll in a total of six classes, three each day; and b) the seven-block A/B model, in which students enroll in seven classes, classes 1-3 and 4-6 on alternating days, and the seventh class (usually referred to as a "skinny") on a daily basis. This seventh class usually retains the format of the daily period scheduled classes; for example, if block classes meet for 90 minutes, the duration of the "skinny" is typically 45 minutes.

In the 4x4 semester plan, students complete four classes each semester, for a total of eight courses per year (Edwards, 1995). One variation is the 3x3 plan, in which students enroll in three blocked classes each semester and one "skinny" which meets the entire year, for a total of seven courses. Another variation is the trimester model, also called the Copernican plan (Carroll, 1989), in which students typically enroll in nine blocked classes, three each trimester.

Advocates of the block format assert that, in addition to providing greater instructional flexibility, block-of-time models promote active student participation in learning, improve the quality of teacher-student interaction, reduce students' daily course loads and teachers' daily teaching loads, provide increased support for interdisciplinary instruction, improve the building climate, and promote in-depth instruction (Buckman, King, and Ryan, 1995; Hackmann, 1995a; Wilson, 1995). Schools using block scheduling report numerous positive student outcomes, including decreased disciplinary referrals and suspensions (Buckman et al., 1995; Carroll, 1994; Hackmann, 1995a, O'Neill, 1995), improved attendance (Buckman et al., 1995; Hackmann, 1995a), increased Advanced Placement course enrollments (Edwards, 1995), increased content mastery (Carroll, 1994), and improved grades (Buckman et al., 1995; Edwards, 1995; Stumpf, 1995).

There is relatively little literature citing disadvantages of block scheduling, but anecdotal data indicate that some teachers express concerns over retention of academic content over a two-day period (in the case of alternating-day models) or an entire year (with semester models), adolescents' ability to maintain attention levels during larger blocks, and teachers' abilities to maintain content coverage (Lindsay, 1998). Another disadvantage is the potential need to hire additional staff, since the amount of teacher preparation time frequently increases (Hackmann, 1995b). Some schools do not have the financial resources to absorb this expense. From the students' perspective, block scheduling can be a negative experience when teachers use only the lecture method in the classroom, either because they have not trained in new teaching models or they are unwilling to modify their teaching styles. Canady and Rettig (1995a) note that a minimum of five days of staff development are necessary to provide teachers with effective strategies for teaching in large blocks of time; if financial resources are not available to support this training, they do not advocate a change to block scheduling. Block-of-time models have not been implemented in some schools due to teachers' resistance to change and concerns over the financial costs of increased staff and training.

Modular/Flexible Scheduling

With the modular scheduling approach, the school day is divided into numerous small "modules" of 10, 15, or 20 minutes, and classes are flexibly scheduled according to the number of modules deemed necessary for content instruction (Trump and Baynham, 1961). With this tremendous flexibility, courses could be scheduled in a seemingly infinite variety of formats: some could meet in daily periods; others in alternating-day blocks; or a course might meet in varying lengths of time throughout the year, for example, in both 45- and 90-minute formats, depending on the planned learning activities. Modular schedules appeared on the high school scene in the late 1950s and are generally credited to J. Lloyd Trump, but the scheduling approach began to lose popularity in the early 1970s and is relatively uncommon today. In its ***Breaking Ranks*** publication, the National Association of Secondary School Principals (NASSP) (1996) recommended that schools develop flexible scheduling models to permit varied instructional uses of time. Consequently, it is likely that, in addition to block scheduling, school faculties may consider modular scheduling or other methods to provide the flexibility that is lacking in traditional scheduling models.

The primary advantage of highly flexible scheduling types is they "avoid the necessity of giving equal time to unequal subjects" (George and Alexander, 1993, p. 371). Extended time can be scheduled for core academic classes, such as language arts, social studies, math, and science, and elective courses may have time allocations reduced. Flexible models also provide the ability to adapt the time allocation to the planned learning activity. For example, a lecture activity may be scheduled for 30 minutes, while a student experiment, cooperative learning activity, or field trip might be planned for a 120-minute module.

Two major disadvantages of modular/flexible scheduling are apparent. First, classes can meet in a large variety of formats, so schedules can conceivably change each week. Consequently, developing a master schedule of all courses can provide a logistical challenge for administrators and teachers, and course conflicts are highly likely to occur. Second, the highly flexible course schedules means that student schedules will also be highly flexible. On given days, students may have unsupervised time modules between classes that could vary in length between 15 and 75 minutes. Not all students may use this unscheduled time for academic learning, which could create a supervision problem for the faculty.

Combination Models

As high school faculties continue exploring their scheduling options, some have fashioned approaches that include features of more than one model. Combination models usually fall into three arrangements: a) daily period schedule with some blocks, b) daily period schedule with interdisciplinary blocks, and c) combination alternating day/daily period schedules.

Daily period schedules with some blocks are, for all practical purposes, a traditional daily schedule with a small number of double-period blocked classes contained within. Occasionally teachers of laboratory classes, such as biology or chemistry, or college-level Advanced Placement classes may request that their courses have additional time scheduled to allow for experiments or an increased amount of academic content.

Daily period schedules with interdisciplinary blocks allow teachers to work as an interdisciplinary team, usually at the freshman level (Hackmann and Waters, 1998). The NASSP (1996) recommends that high school faculties should integrate the curriculum "to the extent possible" so that students can make connections between the disciplines (p. 11). Building upon the interdisciplinary teaming concept long advocated by middle school educators (George and Alexander, 1993), some schools schedule the freshman subjects of language arts, social studies, mathematics, and science in one large interdisciplinary block, empowering these shared teachers to divide their block into any appropriate timeframes for instructing their classes. The remaining courses are scheduled in a daily period format.

Combination alternating day/daily period schedules include features of both models in the weekly schedule. For example, an eight-class scheduling model might be configured with four 90-minute classes on Wednesdays (periods 1-4) and Thursdays (periods 5-8), but schedule all eight classes in a daily period format on Mondays, Tuesdays, and Fridays.

The perceived advantage of combination models is they allow faculties to select the best features of each scheduling option: they permit occasional larger blocks of time for instructional creativity, provide for variety within the school day, and permit a degree of flexibility not available in the more rigid approaches. One disadvantage is that a combination model may be selected as a compromise stance between two competing models identified by two factions within a faculty and, as such, may actually not fully satisfy the needs of any teachers.

A nationwide survey of 3,380 high schools (Cawelti, 1994) disclosed that 23% of responding schools were either fully or partially utilizing block scheduling in 1994, and another 15.4% planned to implement this scheduling approach the following year. Cawelti's research results predict that at least 38% of the nation's high schools—if not more—should now be utilizing alternatives to the traditional daily schedule. Rettig and Canady (1996) estimated that more than 50% should either be using or considering some form of block scheduling during the 1996-1997 school year.

This article describes a descriptive study conducted to determine the scheduling options being implemented in the state of Illinois. The study addressed the following research questions: a) What types of scheduling models are employed in Illinois public high schools, and with what degree of frequency? b) What trends are occurring with respect to the various scheduling types? and c) What reasons do principals provide for adopting, or choosing not to adopt, changes in their scheduling models?

Method and Procedures

In January 1997 principals of the 635 public high schools in the state of Illinois were mailed questionnaires in an effort to determine the scheduling models presently being used within the state and to examine scheduling trends. A cover letter was included with the questionnaire, outlining the research questions and requesting participation in the study. The questionnaire consisted of 42 short-answer and open-ended questions and was divided into three sections. The first section, consisting of eight questions, queried such school data as number of faculty, percentage of students receiving free lunches, number of Advanced Placement courses, and the scheduling of interdisciplinary teaming within the school. In the second section, containing 16 questions, respondents were asked to describe in detail their scheduling models being used in the 1996–1997 academic year, including the number and length of classes, starting and ending times, and use of advisory periods. The principals were also asked the year they implemented their scheduling model, if they intended to change models within the next year, and if they had a plan to evaluate the effectiveness of their current schedule. The third section, consisting of 18 questions, was completed by respondents whose schools had implemented new scheduling models in 1992-1993 or later, or planned to implement a new schedule in the 1997-1998 academic year. In addition to describing their new scheduling models in detail, respondents were also asked to explain their reasons for adopting new models, explain the activities in which their faculties engaged during the change process, and to note the involvement and influence various groups had in the decision to make the scheduling change. Finally, all respondents were given an opportunity to share any additional comments concerning their school's scheduling issues. Usable responses were received from 210 principals, for a 33.1% response rate.

In April 1997 a cover letter and shortened questionnaire were mailed to non-respondents. The survey was shortened to five questions in an effort to reduce the amount of time required for completion and to improve the response rate. The short questionnaire asked principals to describe their current schedule and year of implementation, note if they intended to adopt a new schedule in the 1997-1998 school year, and to describe the new schedule. Principals were also asked to provide any additional comments concerning their schedules. An additional 292 surveys were returned, for a combined total of 402 responses (63.3%).

In May 1997 telephone interviews were conducted with administrators of the remaining 133 schools; they were asked the five questions contained in the shorted survey. Finally, 10 telephone interviews were conducted in August 1997 to obtain information from schools that had not yet selected their scheduling model for the 1997-1998 academic year. As a result of these four data collection waves, responses were obtained from a total of 635 schools (100.0%), and the data reported encompasses the entire population of Illinois public high schools.

A two-phase data analysis procedure was undertaken after all data were collected. Responses to Questions 1-4 (current scheduling model, year of implementation, intent to adopt a new model, and description of 1997-1998 schedule) were entered into the computer data file, Microsoft Excel 97. Descriptive statistics including central tendency measures, totals, and response proportions were calculated for each of these items. Data for the open-ended questions, which related to adoption or rejection of scheduling approaches, were examined separately by the researcher, who subsequently developed a coding strategy based on thematic similarities among responses. Occurrence of coded passages were summed across cases to convey proportional representation of the themes among respondents.

Results

Scheduling Models Employed in Illinois

Respondents provided data concerning the scheduling models used during the current year (1996-1997) and noted the models their schools would utilize for the following year (1997-1998). Data are, therefore, reported for both of these academic years.

Illinois principals reported that their high schools have adopted a variety of approaches to configuring the instructional day, but over 94% of schools utilize either daily period or block schedules. In 1997-1998 the three most commonly used scheduling configurations used in Illinois high schools, by order of preference, were the seven-period daily (209 schools; 32.9%), eight-period daily (188; 29.6%), and eight-block alternating-day schedule (108; 17.0%). A few schools (25 in 1996-1997, 33 in 1997-1998) are using modular schedules or daily period models that contain some larger blocks. Some schools have implemented interdisciplinary blocks for freshman students (9 in 1996-1997, 13 in 1997-1998) that were recommended in *Breaking Ranks* (NASSP, 1996). Table 1 categorizes the models used during the 1996-1997 and 1997-1998 academic years into various forms of daily period schedules, alternating-day models, semester block plans, modular/flexible models, and daily schedules that include block formats.

Table 2 indicates that, when grouped by scheduling type, daily schedules were the preferred model in Illinois but decreased somewhat over the two years. In 1996-1997, 497 of 635 schools (78.3%) used daily period scheduling, and 462

Table 1
Scheduling in Illinois Public High Schools

Scheduling Model	1996-1997 Number of Schools (Percentage)	1997-1998 Number of Schools (Percentage)
Six-period daily	47 (7.4%)	42 (6.6%)
Seven-period daily	235 (37.0%)	209 (32.9%)
Eight-period daily	190 (29.9%)	188 (29.6%)
Nine-period daily	21 (3.3%)	21 (3.3%)
Ten-period daily	4 (0.6%)	2 (0.3%)
Six-block alternating day	4 (0.6%)	4 (0.6%)
Seven-block alternating day	1 (0.2%)	1 (0.2%)
Eight-block alternating day	94 (14.8%)	108 (17.0%)
3 x 3 semester block	1 (0.2%)	1 (0.2%)
4 x 4 semester block	8 (1.3%)	17 (2.7%)
Combination alternating day blocks/daily period	5 (0.8%)	9 (1.4%)
Modular/flexible schedule	10 (1.6%)	11 (1.7%)
Daily schedule with some blocks	6 (0.9%)	9 (1.4%)
Daily schedule with freshman/interdisciplinary blocks	9 (1.4%)	13 (2.0%)
TOTAL	635 (100.0%)	635 (100.0%)

Table 2

Scheduling Totals in Illinois Public High Schools, by Model

Scheduling Model	1996-1997 Number of Schools (Percentage)	1997-1998 Number of Schools (Percentage)
Daily period schedule	497 (78.3%)	462 (72.8%)
Block schedule (predominately)	113 (17.8%)	140 (22.0%)
Modular/flexible schedule	10 (1.6%)	11 (1.7%)
Daily schedule (predominately) with some blocks	15 (2.4%)	22 (3.5%)
TOTAL	**635** (100.0%)	**635** (100.0%)

schools (72.8%) in 1997-1998. Block schedules increased slightly over the two academic years. In 1996-1997, 113 schools (17.8%) used block scheduling, increasing to 140 schools (22.0%) in 1997-1998. Modular/flexible scheduling was used in 10 schools (1.6%) in 1996-1997 and 11 schools (1.7%) the following year. Combination models, primarily daily period schedules with some double-period blocks, were used in 15 schools (2.4%) in 1996-1997 and 22 schools (3.5%) the next year.

Table 3

Illinois Public High School Scheduling Trends by Year of Implementation of New Schedule

	Number	Percent
Implemented in 1993-1994	32	5.0%
Implemented in 1994-1995	52	8.2%
Implemented in 1995-1996	51	8.0%
Implemented in 1996-1997	55	8.7%
Implemented in 1997-98	63	9.9%
Considering implementation in 1998-99	119	18.7%

Scheduling Trends

The number of schools annually implementing changes in their schedules within the each of the past five years demonstrated a trend of gradual increase, from 32 schools in the 1993-1994 academic year to 63 schools in 1997-1998. (See Table 3.) This number was greater for the 1998-1999 school year: 119 principals reported their faculties were considering scheduling changes for 1998-1999. Forty-eight of 53 within this group (90.6%) were considering block-of-time scheduling: 19 noted "some form of block schedule," 11 indicated an alternating-day model, 10 described 4x4 semester schedules, six listed combination block/daily models, one noted a five-block semester model, and one listed a trimester Copernican schedule.

Reasons for Scheduling Changes

Principals who had adopted scheduling changes within the past five years or who were making changes for the 1997-1998 year were asked to respond to an open-ended question in which they listed the reasons their faculties chose to make schedule changes. This question was included only in the original questionnaire, of which there were 210 respondents. Principals in 71 of the 210 schools (33.8%) indicated they had or were making scheduling changes. Several respondents provided multiple responses to this question. Responses were separated by type of schedule implemented (block or daily period), tallied, and then categorized into appropriate groupings. Fifty-nine schools had adopted or were adopting block scheduling models, and 51 provided responses to the question. Each of these schools had switched from a daily period schedule. Twelve schools had switched from one daily period schedule to another (for example, moving from seven periods to eight periods), and six provided responses to the question.

As noted in Table 4, the schools adopting block scheduling formats listed numerous reasons for this change, including the following: providing course flexibility for students (24 responses), improving the quality of the students' educational experiences (22), improving instructional strategies (20), providing increased time for learning (19), and improving the school climate (10), improving the curriculum (7), meeting staffing needs (7), modeling themselves

Table 4

Reasons for Making Scheduling Changes

Reason	Block Schedule (N = 59)	Daily Schedule (N = 12)
Course Choices (increased student electives/courses, eliminate studyhalls)	24	4
Quality Education (deeper learning, higher expectations, improved achievement, graduation rate, increased graduation requirements, better prepare/meet student needs, improve success of middle range or bottom 1/3)	22	0
Instructional strategies (improved strategies, hands-on, innovation, flexibility)	20	0
Time (increased time for learning, time on task, time for homework, individualized attention, practice)	19	2
School Climate (improve teacher/student relationships, discipline, responsibility, organization, attendance, reduce number of daily classes)	10	0
Curriculum (revision, integrated learning, technology, changes in assessment practices)	7	0
Staff (utilization/efficiency/needs, forced change)	7	0
Success of Others (through visits, conference attendance, school consolidation/deactivation)	6	0
Enrollment Growth	0	3
Administrative Decree	3	0
No response	8	6

Note: Totals exceed 100% due to multiple responses.

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after the success of other schools (6), and change resulting from an administrative decree of either the principal or superintendent (3).

Schools making slight modifications to their daily period models (adding or eliminating a period) indicated three reasons: providing course flexibility for students (4), responding to enrollment growth (3), and providing increasing time for learning (2).

Twelve principals of high schools using daily period schedules provided additional comments concerning their choice of models. Each respondent provided reasons why their schools were not adopting block scheduling. These answers were grouped into the following categories: the faculty rejected the block scheduling concept (4 responses), the school was unable to hire the additional staff needed for a block schedule (3), the faculties were awaiting results concerning other schools' experiences with block scheduling (2), their daily period schedules were successful (2), there was no reason to change (1), and the faculty was concerned how block scheduling might affect students who transferred into or out of the school in mid-year (1).

Conclusions and Discussion

This study of Illinois public high school scheduling models discloses that nearly three-fourths of the state's schools operated under daily period schedules during the 1997-1998 school year. Fewer than 27% were using scheduling models that incorporate block scheduling components; this percentage is below the 38% reported in Cawelti's (1994) survey and Canady and Rettig's (1995b) projected 50%. This finding within the state of Illinois should not be generalized to suggest that the national projections of Cawelti and Canady and Rettig were overestimated, because other states exceed the 50% mark. For example, in 1995-1996, 55.8% of North Carolina secondary schools were using block scheduling, up from 1.62% in 1992-1993 (Department of Public Instruction, 1997). This study likely indicates that Illinois educators are taking a more cautious approach with the shift to block-of-time scheduling than educators in other states.

Approximately 5-10% of Illinois high schools implement modifications to their schedules annually, and trends indicate that this percentage will remain constant in the immediate future. A small number of schools have adopted models incorporating features of both daily period and block scheduling. Based upon principals' responses, it is likely that schools will continue to experiment with variations of alternating day and semester block models tailored to solving perceived problems that are unique to individual schools.

Schools making adjustments to daily period schedules (for example, changing from six periods to seven periods) stated three reasons for their changes: to increase student course choices, respond to enrollment growth, and/or to provide increased instructional time. In contrast, school personnel adopting block scheduling provided a variety of reasons, primarily to provide increase student course choices, improve the quality of education, improve instructional strategies, and increase time for learning.

This study has implications for high school faculties, both within the state of Illinois and in other states. The following recommendations are presented as faculties consider changes in their scheduling models:

Teachers should be directly involved in all discussions concerning scheduling modifications. Principals of schools rejecting block scheduling consistently noted their faculties were not ready to teach in larger timeframes and that they were waiting to determine if other schools were successful with this approach. Three schools indicated their move to block scheduling was a unilateral decision of the superintendent or principal, even though the faculties did not support the new models. Fullan (1993) notes that change will not be sustained and institutionalized without the involvement and buy-in of those affected. Therefore, it is likely that teachers will not be committed to modifying their instructional strategies when the change is forced upon them, and changes in instructional practices are critical for the successful implementation of block scheduling (Canady and Rettig, 1995a).

Faculties contemplating scheduling models that deviate significantly from established models should be aware of potential problems they may create for transfer students. How can students who transfer during the academic year be effectively scheduled into schools whose scheduling models are dramatically different from their former schools? The nation's schools do not exist in vacuums and, with the high mobility rate of our population, problems will occur. Consider, for example, a student enrolled in four courses in a 4x4 semester school, who transfers in March to an eight-block alternating-day school, or a school with eight daily periods. Or, the student enrolled in a school with a seven-period daily model who transfers in October to a 3x3-semester school, or a school with a modular schedule. Can school personnel smoothly transition transfer students into their schools in a manner that ensures that their academic development is not compromised? No solutions are proposed here, but it is incumbent upon all high school educators to examine this issue in context with any proposed scheduling change. In fact, personnel in schools that choose to retain their traditional schedules should also discuss this problem, because they will soon be required to accommodate students who transfer from nontraditional scheduling models, if they have not already been faced with this issue.

Faculties should be aware that the selection of scheduling models might effect on student achievement, either positively or negatively. Relatively little research has been conducted to date on the effects the various scheduling models may have on such measures of student achievement as standardized test scores, Advanced Placement test scores, and college entrance examinations. Although principals noted a variety of reasons for changing their scheduling models, only a few discussed issues related to student achievement. For example, if a scheduling change results in less time for instruction, academic content coverage may decrease and student learning may suffer. Conversely, increased time allocations may permit greater depth of content coverage. Furthermore, changing the number of class periods may affect students' ability to enroll in and complete their preferred course selections during their high school careers.

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Time Spent on Higher-Order Tasks in Two Teacher-Apprentice Options

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Abstract

This study investigates the process of assisting a teacher prior to student teaching. Teacher candidates in two certification programs kept a log documenting the tasks they did during their on-site experiences and the time spent on eight types of tasks. A one-way analysis for repeated measures showed that, in both programs, candidates spent a majority of their time on clerical tasks, despite the value they saw in interpersonal contact. A t *test for independent measures revealed no significant difference between constant and varied placements in time spent on teaching a whole class and on other highly valued tasks.*

Early clinical experiences are a critical component of a teacher candidate's preparation for the capstone field experience and for entry into the profession. Since the early 1980s, reform movements have generally called for improvement in the quality and quantity of field experiences for teacher candidates (Berliner, 1985). The Holmes Group (1986) and the Carnegie Forum on Education (1986) emphasized the need to develop more extensive and better clinical experiences as part of teacher preparation programs. More recently, the National Commission on Teaching and America's Future (1996) released a report containing numerous recommendations for redesigning teacher education with specific emphasis on teacher preparation and extended programs of study. Such reform movements have impelled legislatures and school boards of education to require more school experiences of teacher candidates and have promoted the establishment of professional development schools (Guyton and McIntyre, 1990).

It is widely accepted by teacher educators that the quality of early field experiences often differs from one candidate to another because of length, tasks required during classroom visits, and type of placement. Thomson, Beacham, and Misulis (1992) found that in traditional programs, longer experiences helped teacher candidates develop confidence and self-esteem as well as heighten their awareness of the profession. Longer field experiences also provide teacher candidates with a better understanding of teachers' actions, curriculum, and student behavior. Fullan (1985) reported that by extending field experiences, teacher candidates were better able to adjust to the routines of teaching. The above findings, however, rely on self-reports of attitude.

Despite these positive findings about longer field experience programs, some teacher educators have argued that what occurs during the field experience is more important than the length of the experience (McIntyre, 1983; McIntyre, Byrd, and Foxx, 1996; Ziechner, 1980). Research studies taken from traditional teacher education programs indicate that teacher candidates in early field experiences are typically engaged in a very limited and narrow range of classroom activities (Feiman-Nemser and Buchmann, 1986; Howey, 1986; Killian and McIntyre, 1986; Tabachnick, Popkewitz, and Zeichner, 1979-1980). Howey (1986) found that "many of the experiences that [teacher candidates] have in schools lie more in the direction of largely unchallenging pedestrian activities than in well-conceived activities where prospective teachers have opportunities to inquire, to experiment, and to reflect on the subtleties and complexities of the classroom" (p. 174). Would the same be true in longer, collaborative field experiences as proposed by reform efforts?

In addition, several studies of traditional programs have supported the placement of teacher candidates in varied settings during early field experiences. Garibaldi (1992) advocated that teacher candidates should be exposed to a variety of students and schools as early as their first semester in college; furthermore, they should be assigned to different schools and classrooms every semester of their program. The purpose of increasing the number and variety of sites is to provide opportunities to investigate, reflect, and solve problems in multiple communities rather than in limited contexts (Cinnamond and Zimpher, 1990; Sedlak, 1987).

In all, some researchers indicate that in traditional programs, longer field experiences improve candidates' attitudes toward teaching and feelings of competence in the classroom; by contrast, others state that even in relatively long placements the experience itself is typically low in quality. Still others advocate variety of placement. The research literature is lacking, however, in studies of newer teacher education programs that offer very extensive field experiences. In particular, research on the new field experiences does not clearly show what tasks candidates are doing and whether those tasks vary with length or variety of placement. The present study addresses proposed changes in amount and kind of early field experience. Specifically, this quantitative study tests whether increases in length and variety of placement, as proposed by reform movements, result in better-quality clinical experiences as measured by time spent on whole-class teaching and other tasks valued by both candidates and cooperating teachers.

The present research is part of a longitudinal study that has been conducted at a university in the Midwest to assess changes brought about by reform. The researchers have been studying their university education courses that have a long early clinical experience component and are taught on site in three schools through a collaborative model. Teacher candidates in these courses have reported that, while assisting a teacher in the classroom, they complete a variety of tasks ranging from photocopying to teaching a class. They ranked teaching a class as the most valuable experience, followed by tutoring or assisting a small group, assisting the class with seatwork/lab work, grading student work, preparing teaching materials (other than photocopying), testing, observing, and copying. Cooperating teachers agreed that whole-class teaching and tutoring were the most valuable tasks and did not differ significantly in rating the other tasks. In addition, constancy of placement, as opposed to variety, was associated with greater frequency of teaching a whole class, the most highly valued task of those studied. However, the study did not measure whether the teaching was done for any appreciable length of time.

Based on the above findings, a second study was conducted to learn whether, in these field-based programs, time spent on teaching a whole class and on other highly valued tasks increased as the semester progressed. The researchers also investigated whether time allocation was affected by constancy of classroom placement. Research suggests that a disproportionate amount of time would be spent on tasks that the candidates found low in value but that time on highly valued tasks would increase as teacher candidates spent more time in the classroom. Despite Garibaldi's advocacy of variety in placement, the authors believed that placing a given candidate with the same public school teacher, rather than shifting teachers, might result in more time spent on valued tasks.

Method

The study was conducted in three schools associated with a college of education at a university in the Midwest. In response to calls for reform at both the state and national levels, the university has actively engaged in collaborating with public schools and implementing extensive field experiences prior to student teaching. Like other institutions attempting to move away from traditional models of teacher preparation, the university has designed and implemented two programs where instruction and field experience take place concurrently in a public-school setting.

Subjects were forty-nine self-selected teacher candidates, all at the junior, senior, or postbaccalaureate level, seeking certification at the secondary level; each chose to take part in one of the on-site programs rather than a traditional, campus-based section. Randomly assigning the candidates to one of the two programs was not possible because university rules allow students a choice. However, a prior survey by the authors indicated that students were basing their choices primarily on scheduling constraints rather than on preferences for cooperating teachers or even knowledge of the programs. Thus there was reason to believe that the two groups did not differ substantially.

The first of these two programs was part of a professional development school (PDS) where teacher candidates took educational psychology and a general instructional methods course taught in a block format in either a middle school or high school setting. The teacher candidates assisted a cooperating teacher in their specialty area for one class period every day throughout the semester; during the subsequent class period, the PDS students met with university faculty to learn theoretical concepts to be applied in the classroom. In the second program, each student worked with the same cooperating teacher for a six-hour block of time in completing assigned instructional modules. University faculty and teacher candidates in the module-based program met once a week for classroom instruction to discuss theory and its application in the classroom. In both programs, cooperating teachers were invited to become actively involved in teaching information alongside university faculty, thereby encouraging collaboration.

At the beginning of the semester, university faculty in both programs encouraged cooperating teachers to assign whole-class teaching and other high-level tasks such as developing an evaluation instrument in relationship to a unit or units being taught, planning for and teaching a small group of students, or assisting a member of the faculty in an extracurricular activity.

During the spring 1996 semester, the teacher candidates kept a "Time and Task Log" documenting the tasks they did during their on-site experiences and the time spent on each task to the nearest quarter hour. The logs requested data in eight main categories: (a) whole-class teaching, (b) tutoring or assisting a small group, (c) assisting the class with seatwork/lab work, (d) grading student work, (e) preparing teaching materials (other than photocopying), (f) testing, (g) observing, and (h) copying. Figure 1 is a representative example of the "Time and Task Log."

Four statistical analyses were performed on the logs. Within the PDS group, the proportion of time spent on each of the eight classroom tasks was studied, comparing three time periods within a semester to determine whether candidates were allowed to do more whole-class teaching and other valued tasks.

Name ______________ School where you assisted ______________

Week you assisted ______________

Record the time you spend each day in the following activities.

Give all time to the nearest ¼ hour.

CIRCLE APPROPRIATE WEEK NUMBER: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

TASKS	M	T	W	R	F
Photocopying or collating					
Preparing teaching materials (bulletin boards, graphs, models, etc.)					
Grading student work					
Assisting 1 person/small group					
Assisting class with work (seatwork, etc.)					
Giving tests to class					
Teaching the whole class					
Observing (doing no other tasks at the time)					
Other (specify):					

Figure 1. Assisting the teacher: Time and task log

The mean rating of the eight classroom tasks was also studied to determine whether candidates increasingly engaged in more valued tasks as they gained classroom experience. The mean ratings were computed as follows: Based on a previous survey of tasks that cooperating teachers and teacher candidates value, each task had a given rank (teaching a whole class, for example, had a rank of 1). For a given task, its rank was multiplied by the number of hours each subject spent on that task; that figure was then divided by total hours spent on all tasks; next, the mean for all subjects was determined. This composite rating represents the overall quality of time spent: the lower the number, the higher the overall quality. Thus, the mean rank would be lower at the end of the semester if candidates increasingly performed whole-class teaching or other highly-valued tasks. For each of the above comparisons, a one-way analysis of variance for repeated measures was performed to determine significance.

The PDS group was also compared to the module-based group to determine whether constancy of placement (the PDS group), as opposed to variety (the module-based group), was associated with more time spent on highly-valued tasks. Again, the proportion of time spent on whole-class teaching and the mean rating of the eight classroom tasks was studied. For each of these

Table 1

PDS Group: Proportion of Time Spent on Each of Eight Classroom Tasks During Three Time Periods

Tasks	1st third of semester	2nd third of semester	3rd third of semester		
1. Whole-class teaching	X=.051	X=.089	X=.087	f=1.24	p=.304
2. Assisting small groups	.091	.119	.103	f=.47	p=.631
3. Assisting class	.234	.113	.183	f=4.24	p=.023
4. Grading papers	.125	.075	.117	f=1.44	p=.252
5. Preparing teaching materials	.090	.104	.072	f=.42	p=.662
6. Giving tests	.053	.025	.065	f=1.19	p=.318
7. Observing	.303	.456	.393	f=3.79	p=.033
8. Photocopying	.023	.019	.011	f=1.36	p=.271

Table 2

*PDS Group: Mean Rating of Eight Classroom Tasks During Three Time Periods***

	1st third of semester	2nd third of semester	3rd third of semester		
PDS Program	X = 4.62	X = 4.93	X = 4.71	f=1.15	p=.482

N=17

**lower score indicates more of the most valued tasks

two comparisons, a *t* test for independent measures was performed. An alpha level of .05 was used for all statistical tests.

Results

Within the PDS group, the proportion of time spent on each of the eight classroom tasks was studied. Three time periods were compared within the semester to determine whether candidates were allowed to do more whole-class teaching and other valued tasks as they gained classroom experience. A one-way analysis of variance for repeated measures showed no significant differences among the three time periods for most of the tasks; however, significant differences were found for "assisting the class" and "observing." The proportion of whole-class teaching, the most valued task, was uniformly low.

The mean rating of the eight classroom tasks was also studied to determine whether candidates increasingly engaged in more valued tasks as they gained classroom experience. A one-way analysis of variance for repeated measures showed no significant differences among the three time periods. The three mean ratings showed uniformly frequent occurrence of low-valued tasks.

The PDS group was also compared to the module-based group to determine whether constancy of placement (the PDS group), as opposed to variety (the module-based group), was associated with a higher proportion of time spent on highly-valued tasks. Again studying the proportion of time spent on whole-class teaching and the mean rating of the eight classroom tasks, a *t* test for independent measures was performed; no significant differences were found between the two groups. The two programs were uniformly low in proportion of whole-class teaching, and mean ratings showed uniformly frequent occurrence of low-valued tasks. (See Table 3)

Discussion

The findings from this study are of particular interest when considered in relation to reform proposals advocating extended, collaborative field experiences. In agreement with previous studies of traditional programs, a large percentage of time was spent on tasks that the candidates found low in value. This finding does not reflect a change toward better-quality field experiences; unfortunately, it echoes past research from traditional teacher education programs where candidates in early field experiences engaged in a very limited and narrow range of classroom activities (Howey, 1986; Killian and McIntyre, 1986; Tabachnick, Popkewitz, and Zeichner, 1979-1980). Although low-valued tasks are part of teachers' daily responsibilities and need to be experienced, the opportunity to involve teacher candidates in tasks that are valued more highly would seem greater if candidates spent extended periods of time in the classroom, as advocated by reform efforts. Would teacher candidates, though, spend more of their time on highly valued tasks if given a more extended experience? The findings from this study raise some doubt.

The proportion of time on highly valued tasks did not increase as the teacher candidates spent more time in the classroom. Two concerns arise from this finding. First, teacher candidates in the constant placement (the PDS group) did not spend a significantly greater proportion of time on whole-class teaching and on other highly valued tasks at the end of the se-

Table 3

Comparison Between PDS Group and Module-Based Group: Proportion of Time Spent on Whole-Class Teaching

PDS group	Module-based group
N=17 X=.05	N=32 X=.05

t= -.12 df=47 p=.905

*Comparison Between PDS Group and Module-Based Group: Mean Rating of Eight Classroom Tasks***

PDS group	Module-based group
N=17 X = 4.62	N=32 X = 4.27

t= -1.21 df=47 p=.231

**lower score indicates more of the most valued tasks mester than at the beginning. (When comparing the three time periods for each of the eight tasks, the significant differences found for "assisting the class" and "observing" might indicate that as candidates had less opportunity to assist the class, they began to observe more.) Second, despite no change in the proportion of time, the total time that candidates in constant placements spent in the classroom did, as a rule, provide a high total time at valued tasks as well as opportunity to develop confidence and awareness of the routines of teaching. However, some of the candidates never engaged in the most valued tasks during their entire extended experiences. These two issues reinforce the notion that often what occurs during the field experience is more important than the length of the experience (McIntyre, 1983; McIntyre, Byrd, and Foxx, 1996; Ziechner, 1980).

Placing a given candidate with the same cooperating teacher, rather than shifting teachers, did not result in a greater proportion of time spent on valued tasks. The overall lack of significant differences across time (within the PDS group) and across groups (PDS and module-based) suggests that task assignments are less influenced by experience and program design than by the cooperating teacher's preferences and the teacher candidate's perceived abilities. The selection and matching of cooperating teachers to teacher candidates, therefore, takes on additional importance, especially for those in constant placements (the PDS group).

This study suggests several recommendations that may help teacher education programs to change the design of their early field experiences in response to reform. First, placement with the cooperating teacher is an important aspect. University faculty need to work closely with building administrators and cooperating teachers to insure the best selection of mentor teachers. In cases where building administrators typically make the decision about placements, emphasis should be placed on establishing collaborative partnerships between schools districts and colleges of education. Second, supervision becomes extremely important when placing teacher candidates with cooperating teachers for a longer early field experience. Through closer supervision, university faculty have greater opportunity to interact with cooperating teachers to resolve concerns, teach side-by-side when additional mentoring is needed, and encourage teacher candidates to be engaged in more highly-valued tasks. Third, communication with the cooperating teacher about what is expected of the teacher candidate is vital. Information should be shared both orally and in writing as to the expectations for each early field experience. Fourth, teacher education programs should consider a combination of constant and varied placements throughout a teacher candidate's preparation for the capstone field experience. Since neither approach appeared to out-perform the other in this study, a combination of both might be best. Additional research is needed to study the possibilities of sequencing placements with variety and constancy so as to give teacher candidates the best of both. In either case, however, the greatest challenge will be to persuade cooperating teachers to give candidates more opportunities to engage in complex, responsible tasks.

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Research Alive

The Relationship between Culture and Cognitive Style: A Review of the Evidence and Some Reflections for the Classroom

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Abstract

This column summarizes factors in cultural experience that affect approaches to learning and problem solving. It reviews the evidence over the past thirty years on cognitive style differences in culturally diverse groups in the United States including Asian, African, Latino, and Native Americans and reports recent research findings on the Hmong. Finally, it raises some issues to consider when working with students from different cultural backgrounds.

The possibility of a relationship between cultural experience and cognitive style has been supported, challenged, or rejected by anthropologists, psychologists, and educators. Indeed, the mere idea of such a relationship has been the subject of recent controversy and much debate. The controversy has arisen primarily out of a concern about biases in Western thought in reference to cultural differences. However timely, this concern has tended to be based on assumptions that confuse concepts of so-called "intelligence" with different approaches to learning which arise out of diverse socialization practices. As a result, even the mention of cultural cognitive style is sometimes interpreted as evidence of an arrogant and Eurocentric bias in regard to non-Western populations.

The debate has arisen out of a long series of studies in the fields of cultural anthropology, psychology, and education. These studies have focused on how thinking and learning occurs in various cultural contexts. While early studies were based on the cognitive developmental concepts of Piaget, others were derived from the pioneering work of Witkin and his associates (Witkin et al., 1973) and Berry (1976) on the relationship between culture and cognitive style. The long dialogue regarding the complexities and inter-relatedness of culture and cognitive processing is beyond the scope of this paper but has recently been addressed in a comprehensive review of cultural psychology by Michael Cole (1996).

Kraemer (1973) asserted that people sharing common primary experiences develop similar styles of cognitive processing including perceiving, conceiving, and judging. The concept of diverse cognitive styles arising out of different cultural experiences has been supported by Anderson (1988):

> Because the social, cultural, and environmental milieus of ethnic and racial groups differ, one should expect these differences to be reflected in their respective cultural/cognitive styles. Much of the literature in cross-cultural research supports this contention (p. 4).

More recently Shade (1997) has concurred with this view and has stated that:

> Culture, through the mediating process called cognitive style, determines the affective and cognitive behaviors which an individual selects to meet environmental demands. As environmental psychologists have been able to suggest, situations in which individuals find themselves tend to solicit the behavioral patterns necessary for survival within the confines of that situation. As such cognitive style has a significant impact upon an individual's competent performance in various behavioral settings (p. 10).

In addition, Shade (1997) maintains that culture influences not only cognitive processing but modes of communication and social interaction as well.

Basically, the literature on cultural considerations and cognitive style falls into three main categories: (a) an array of philosophical and historical essays about the relationship of culture and cognition; (b) a wide variety of research studies reporting differences in cognitive style and interactive modes among students from diverse groups both globally and in the United States; and (c) suggestions for taking cognitive style into account in teaching. The importance for teachers to know specific ways in which cultural experience impacts cognitive style, however, generally has not been taken into account in discussions of implementing cognitive style in classroom settings. An example of this relationship between learning at home and learning at school is described later in this paper in regard to Hmong students in American schools.

Learning Style or Cognitive Style?

The term *cognitive style* needs to be differentiated from *learning style*. Because these terms have sometimes been used interchangeably, some confusion has arisen as to what degree they overlap or refer to similar or different issues.

Learning Style

The term *learning style* has been used to refer to different factors, some internal, some external, some cognitive, some emotional, some social, and some behavioral. Irvine and York (1995) consider learning styles to be "an umbrella term encompassing three distinct substyles: cognitive, affective, and physiological" (p. 484). Curry (1990) has pointed out this problem of ambiguity in regard to the term itself. Slavin (1997) refers to "Theories of Learning Styles" but switches to the term "cognitive style" without differentiating between them (p. 136).

Kagan (1964) distinguished between an impulsive and a reflective approach to learning. Entwistle (1981) later concurred about the importance of impulsivity or reflectivity in style. Fischer and Fischer (1979) referred to style as "a pervasive quality in the *behavior* (emphasis mine) of an individual" (p.245). Shade (1989) distinguished between an analytic and a synergetic style.

Fischer and Fischer (1979) further identified and described ten different kinds of learners: the incremental learner, the intuitive learner, the sensory specialist, the sensory generalist, the emotionally involved, the emotionally neutral, the explicitly structured, the open-ended structure(d), the damaged (in self concept and social competence among other problems), and the eclectic learner.

Based on individual *preferences for different learning conditions*, Dunn and Dunn (1979) identified four parameters of learning style: environmental, emotional, sociological, and physical. These parameters, or "stimuli," were further broken down into eighteen "elements." Among these, the environmental elements were sound, light, temperature, and design (or physical arrangement of the room); the emotional elements were motivation, persistence, responsibility, and a need for structure; the sociological elements included a preference for working alone, with peers, with an adult, or a combination of these potential partners; and the physical elements referred to perceptual strengths (visual, auditory, tactile, kinesthetic), a need for "intake" (food, drink), time of day, and greater or lesser need for mobility.

Entwistle (1981) suggested that style refers to *information processing*. Similarly, Nieto described learning style as "the way in which individuals process and receive information" (1992, p. 111). The term *learning style* as used by Entwistle and Nieto in regard to information processing is synonymous with cognitive style. Gardner (1983) has suggested that culture, affect, and cognition interact and are conducive to multiple intelligences (logical-mathematical, spatial, musical, kinesthetic, and interpersonal), thus blurring the distinction between culture, style, and different *abilities*.

Perhaps the most comprehensive definition of learning style is that of the National Task Force on Learning Style and Brain Behavior (as cited in Keefe and Languis, 1983):

> Learning style is that consistent pattern of behavior and performance by which an individual approaches educational experiences. It is the composite of characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment. It is . . . molded by . . . the cultural experiences of home, school, and society (p. 1).

Another ambiguity in definition of learning style is that the differences between style, strategy, and tactic have not always been clear. Entwistle (1988) suggested that strategy refers to *consistency in* (students') *approach* to different learning situations. Snowman (1989) suggested that tactic refers to the *observable activities or habitual responses* of students in learning situations. In view of these different interpretations of what learning style means , it is clear that different educators use the term "style" to refer to different processes and that in fact they are referring to behavior, preferences for different environments, strategies, or tactics.

In concordance with the concept of learning styles, a plethora of tests were created to measure "styles." Irvine and York (1995) report that more than thirty test instruments have been constructed. Some of these tests were designed for children, while others were created for adults and applied in both educational and business settings (Gregorc, 1982, for example). Research using these tests has been extensive. According to Irvine and York, several thousand studies were conducted between the mid 1980s and 1995. Curry (1990) has questioned both the validity and the reliability of many of these instruments. Timm (1996) has pointed out an additional problem in regard to learning style instruments. The forced choice format is based on an assumption that individuals have a fixed rather than an adaptive approach to learning situations and to problem solving. A final criticism of learning style instruments has been that they have low predictive value for achievement (Irvine and York, 1995). This, however, may be a spurious concern due to the fact that there is no reason to assume that one approach over another will necessarily result in success.

In spite of these problems in definition, test assumptions, and difficulties in utilizing test results in the classroom, the concept of learning styles does offer some important considerations about the relationship between cultural experience, individuality, and learning situations.

Cognitive Style

Correctly used, the term *cognitive style* derives from cognitive theory and refers to variations in information processing, perceiving, conceptualizing, analyzing, and problem solving procedures (Timm, 1996). Evidence suggests that cultures differ in respect to these processes. Ambiguities have occurred with the term cognitive style, however, similar to those associated with learning style. For example, Kuchinskas (1979) identified cognitive style "as the way an individual acts, reacts, and adapts to the environment" (p. 269).

In this review, the term *cognitive style* is used to refer to cognitive processes. Field independence or sensitivity, communication, and social interaction modalities are specified as such. Wherever the term *learning style* appears in this review, it is the term used by the author(s) under discussion.

Another interpretation of cognitive style (which also includes social and behavioral factors) is a concept known as *field independence/dependence*, first identified and described by Witkin and his associates (Witkin et al., 1971;

Witkin et al., 1977; Witkin, 1979; Witkin and Goodenough, 1981) by means of the Embedded Figures Test and subsequently the Group Embedded Figures Test (Witkin et al., 1973). The Children's Embedded Figures Test (Karp and Konstadt, 1971) was further developed from this test. These tests require the test taker to locate or identify basic geometric shapes embedded in surrounding complex patterns. Two important aspects of these tests have generally been overlooked in the literature. First, the shapes are basic configurations and, second, the tests are language free, thus eliminating the bias of linguistics, although directions for the test may be provided in different languages.

Because many studies have reported cultural differences in field independence/dependence, it is important to clarify these terms here. Chickering (1976) described field independence/dependence as differences in ability to distinguish figure from ground (or shape from pattern) and (by logical extension) a construct from its surrounding context. Field independent learners have been reported to be adept at identifying specific aspects of a situation and at separating concepts from context. Other characteristics include a preference to work independently, intrinsic motivation, and a desire for personal recognition. Heppner and Krauskopf (1987) further reported that field independent learners persevere longer and are more self-directive in their learning than field dependent learners. Field dependent learners tend to be situation specific in their orientation to learning, and tend not to separate concepts from context. Other characteristics include a preference to work with others, a need for extrinsic motivation, an orientation toward social cues, and a sensitivity to others. Heppner and Krauskopf (1987) have also reported that field dependent learners adapt to new situations more easily than field independent learners. Recently the term *field sensitive* has been used rather than field dependent. It is important to note that field independence or dependence are *value free* designates and that they should not be confused with notions about intelligence, ability, or as predictors of academic performance. They are simply tendencies along a continuum by which individuals perceive, conceptualize, and problem solve in their approach to a learning situation.

Cultural Factors in Learning

In the definition of learning style by the National Task Force on Learning Style and Brain Behavior (cited above), reference is made to the relationship between style and cultural experiences. Guild (1994) has reported three different sources for research information about the relationship between culture and learning processes. These are: (a) observations and descriptions of learners from different cultural groups; (b) data based on test instruments administered to diverse student populations; and (c) direct discussion (including interviews). The major ways in which cultural experiences affect cognitive style have not always been made explicit in reports of students from diverse groups, however. These experiences include socialization or child rearing practices, cultural "tightness," ecological or environmental considerations, a written or oral/aural language tradition (Worthley, 1987; Bennett, 1990), and so-called "high" or "low" context cultures (Halverson, 1993).

Permissive socialization practices, which encourage individual experimentation or trying different ways of performing tasks, result in a wider flexibility of cognitive style. Strict socialization practices, with pressure to perform tasks according to traditional ways, result in less flexibility of style (Jahoda, 1980). Strict practices which focus on obedience also tend to result in an orientation to learning which is specific to the present situation (Nedd and Gruenfeld, 1976).

Cultural "tightness" refers to the degree of emphasis and value given to traditional routines. Cultural "looseness " refers to the degree of latitude given to variation in the performance of daily tasks or routines. Thus "tight" cultures tend to follow precisely various time-honored ways while "loose" cultures are less rigid and more flexible in regard to traditional procedures (Worthley, 1987).

Ecological adaptation refers to customs in relation to nature within any given culture (Berry, 1976). For example, some cultures rely on highly developed perceptual skills for survival. Cultures which depend primarily on agriculture and animal husbandry emphasize customary routines in order to survive. Child rearing practices focus on responsibility, conformity to customs, and the value of traditional ways. Cultures which depend primarily on hunting, gathering, and to some extent fishing for survival require more self-reliance and application of skills under varying circumstances. Child rearing practices, while teaching traditional methods, also tend to encourage more individual initiative.

Literate societies use written symbol systems for the transmission of knowledge. Learning is more abstract and decontextualized than in oral societies which follow a more active mode and use demonstration and role modeling in order to teach. Learning is through observation and is based on specific situations (Hvitfeldt, 1985).

In addition to the foregoing considerations, Halverson (1993) has described another factor—that of "high" and "low" context cultures. In high context cultures, learning is situationally based within a social context. Skills and procedures are demonstrated and learning depends to a large degree on observation. Learners also relate the learning process to their place in social groups and to their role in society. In low context cultures, learning is more detached from the immediate use of the information and procedures are described in verbal or written form. Learners are less oriented toward the applicability of the information being transmitted in terms of the immediate task or social situation than they are in high context cultures.

Cultural Diversity and Cognitive Styles

There is a steadily increasing body of evidence in support of the notion of different patterns in cognitive style including field independence/dependence among students from diverse cultural backgrounds. The following review focuses on diverse groups in the United States.

Asian Americans

Differences among Asian Americans have been reported in accordance with ethnic background.

The Hmong. As an example of the relationship between the cultural factors cited above and cognitive style, Timm and Chiang (1997) have described traditional Laotian Hmong culture and the cognitive style of Laotian Hmong students in the United States. In their former rural agricultural mountain communities in Laos, the Hmong approach to learning was situation specific. Strict socialization practices emphasized obedience and adherence to time honored procedures. The culture was "tight" with little latitude in routines. Ecologically, survival depended primarily on successful crops, although there was some hunting and fishing. As part of the socialization process, children participated in agricultural work as young as four years of age (Lee, 1986). Pressure for conformity was high in Hmong social organization, based on patrilineal clans with clear lines of male authority. Social roles were delineated along gender lines.

The culture was primarily oral and formal education was rare. Few villages had a school. Knowledge was handed down from generation to generation. It has been estimated that seventy percent of Hmong refugees were non-literate when they left Laos (Takaki, 1989). Thus, learning to use a written language was a profound problem which many faced in their relocation into literate societies such as the United States. The concept of writing was not unfamiliar to the Hmong, however. There have been "at least fourteen major attempts to develop writing systems for the Hmong language over the past one hundred years" (Smalley, 1990, p. 149) but Hmong students who did attend school were instructed in either Lao or French. The Hmong who cooperated with the United States during the Vietnam War gained some literacy in English (Duffy, 1997). The Romanized version of Hmong, developed in the early 1950s by two linguists (William Smalley and Linwood Barney) and a French priest (Yves Bertrais) and known as the Romanized Popular Alphabet (RPA), has become the most widely accepted and is the script used in the United States (J. Duffy, personal communication, January 12, 1998).

Finally, Hmong culture may be described as being high context. Learning was situationally based and children received their "education" at home and in the fields where they learned through observation. Procedures were demonstrated rather than discussed.

Hmong families in the United States continue to teach their children in the traditional way by using demonstration and relying on observational learning. At the same time, however, Hmong students are encountering curricular programs in American schools which transmit information in a decontextualized, written form and emphasize a more independent approach to learning. Using the Group Embedded Figures Test (available from Consulting Psychologists Press in Palo Alto) as the test instrument to determine field independent and field dependent cognitive styles, Timm and Chiang (1997) first reported a field dependent cognitive style consistent with Hmong situation specific learning experience. In a follow-up study, Timm, Chiang, and Finn (1998) found acculturating effects of length of residency in the United States and duration of time in American schools on Hmong students' cognitive style. Covariance statistical analyses yielded significant effects for both U. S. residency and years in American schools. In other words, evidence of Hmong cultural practices was found in the cognitive and social interaction styles of these students but shifts were also found from a situation specific or field dependent style to a more field independent style associated with the number of years the students had been living in the United States and attending American schools. Gender differences were also found in the shift in style with the boys moving into a field independent mode slightly ahead of the girls. This difference may be attributed to Hmong socialization practices in regard to gender roles (Timm et al, 1998).

Prior to the studies by Timm and Chiang (1997) and Timm et al. (1998), two earlier studies reported both cognitive and interaction styles consistent with Hmong cultural experiences. Hvitfeldt (1986) reported behaviors characteristic of a field dependent style in a literacy class for nonliterate and low literate Hmong adults, ranging from twenty to sixty-five years of age. These behaviors included consistent interpersonal interactions among the students, a reliance on contextual referents, and a personal relationship with the instructor. Using the Group Embedded Figures Test, Worthley (1987) reported a two-to-one ratio of field dependence over field independence among Hmong male high school and college students, ranging from seventeen to thirty-five years in age.

Other Asian students. Reid (1987) also found acculturating effects among other Asian students and reported that college ESL students who had been in the United States for more than three years were significantly more auditory in their learning style preference in comparison with students who had been in this country for shorter periods of time. Reid further reported visual learning style preferences among Korean, Chinese, and Arabic-American students in comparison with Japanese students.

In a study of learning style preferences among Chinese, Filipino, Korean, Vietnamese, and Anglo high school students, Park (1997) reported major preferences for an auditory style among Vietnamese and Chinese American students, and a minor preference among Korean, Filipino and Anglo students. Park also reported a minor visual learning style preference among the four Asian groups in contrast with Anglo students who showed a negative response to visual learning. There were also differences among the Asian groups, with the Chinese students being the most visual, followed by the Filipino and Korean, and the Vietnamese students being the least visual in their preference. Ewing and

Yong (1993) also reported a visual preference among gifted American-born Chinese students.

Park (1997) further examined these students' preferences for group or individual approaches to learning. The Vietnamese students showed the highest preference for group learning, the Filipino students showed a minor preference for it, and the Chinese, Korean, and Anglo students did not prefer it. This is an important finding because cooperative learning approaches may work well with Vietnamese and Filipino students but not so well with Chinese, Korean, and Anglo students. Park reported that high achievers across all groups preferred an individual style and that low achievers preferred group learning.

Differences in socialization practices, social interaction styles, and educational values have been reported among other Asian American groups in reference to ethnicity and length of residency in the United States. Cabezas (1981) reported differences in socialization practices in the San Francisco area among Chinese and Filipino mothers born overseas in comparison with American born mothers. Rumbaut and Ima (1988) reported that Vietnamese, Chinese-Vietnamese, and Hmong parents in San Diego placed more emphasis on school achievement than Lao and Khmer (Cambodian) parents. These value differences may be attributed to their prior cultural experience. Lao refugees in the United States have tended to come from rural areas. The more educated and urban Lao refugees relocated in France following the takeover of Laos by communist forces after the Vietnam War. Likewise, many of the Khmer refugees who settled in the states were from rural areas of Cambodia and were less educated. The more educated Khmer were massacred during the Pol Pot regime. Consistent with Rumbaut and Ima, Timm (1994) reported that although Laotian Hmong families now living in the Midwest had come from rural areas where education was minimal, they have adopted a high value for education in regard to their children in the United States.

African Americans

Ogbu (1983) described an historical, caste-dominated society along racial lines in the United States by which exploitation has extended across economic, political and social experience. It is not surprising, therefore, that African American cultural patterns include values which emphasize group unity and mutual support (Staples, 1976). Jones (1979) added spirituality, spontaneity, and a preference for oral expression. Boykin (1986) suggested that African American culture contains nine themes: spirituality, harmony or interdependence with humans and nature, movement, "verve", affect, communalism or social connectedness, personal expression, oral tradition, and a focus on "social time." These aspects suggest that students may learn better through personal relationships with the teacher, cooperative learning modes, and oral strategies. In Shade's (1997) view, African American experience has led to "survivalisms" (p. 14) or an experiential wisdom among African Americans which is not shared by non-Blacks. According to Shade, the sources of African American culture include these survivalisms, European American mainstream society, and a culture of oppression which causes anxiety, over-identification with those in power, hostility, an ability to handle contradictions, and a preoccupation with issues of freedom and equality. Shade has suggested that "the kinship system (including protection and mutual support), world view, and social interactive behaviors have the greatest impact on learning style" (p. 15) and that African American culture and social stratification "serve as the transmitters of the cognitive and affective entry behaviors which come with the child to school" (p. 24).

Shade (1997) further reported an auditory processing mode, a precociousness sensori motor capability, a socially oriented (as opposed to an object centered) modality, and a preference for an interactive learning situation among Black children. She further suggested that perception (and therefore interpretation) of visual cues is affected by cultural experience. African Americans are more likely to be field dependent when tested on the Embedded Figures Test (Shade, 1986). This field sensitive finding is consistent with Gitter, Black, and Mostofsky (1972) who reported that African Americans are sensitive to social cues and adept at interpreting facial emotions. This social sensitivity impacts Black students' behaviors in the classroom (Shade). Ewing and Yong (1993) also found a preference for a visual learning mode among gifted African American students.

Mexican Americans

A sensitivity in the social interaction of Mexican Americans, together with an orientation to collective or collaborative efforts, reflects the traditional Mexican cultural values of close affiliation with family and community (Shade, 1997). Slonin (1991) suggested that Hispanic culture is based on cooperation, interpersonal relationships, a "relaxed" time perception , a preference for physical proximity, and traditional sex roles. Vasquez (1990) suggested that Hispanic American students' orientation of loyalty to family and groups may predispose them toward cooperative learning. Dunn and Dunn (1978) reported that Mexican American students were peer oriented and were more likely to perform well in cooperative group situations. In a large study of Mexican American immigrant and first generation elementary students and Anglo American elementary students (n=687), Dunn, Griggs, and Price (1993) found that the Mexican American students were more peer-oriented than were the Anglo students, with the Mexican American girls more peer oriented than the boys. They also found that the Mexican American boys had the strongest preferences for tactile learning and that the Mexican American girls in general showed less tactile learning preferences and a more varied approach to learning than the boys. Similarly, Ewing and Yong (1993) reported that gifted Mexican American students preferred a kinesthetic learning style over an auditory or visual one. Mori (1991) reported that Mexican students with higher English proficiency continued to show a stronger orientation for active learning in comparison with high English proficiency Japanese students who did not prefer this modality.

Saracho (1991) cautioned against making assumptions about cognitive style in Mexican American children, however. She asserted that, although a generally field dependent, prosocial orientation has been assumed in Mexican American children, field independence/dependence "is a relative rather than an absolute tern (and that) extensive data must be collected and analyzed before accepting any generalizations" (p.23). In a study of Mexican American kindergarten children from an agricultural community, Saracho found a range of field independence/dependence on The Children's Embedded Figures Test (CEFT). She also found significant differences in the children's play behavior and social competence. In other words, Saracho found both a diversity of cognitive styles and a range of social competency related to that stylistic diversity.

Saracho (1997) further suggested that both the amount of traditional procedures in child rearing and the degree of generational distance from migration to the United States both affect cognitive style. Several findings on differences in cognitive style among Mexican Americans in relation to Anglo contact support Saracho's view. Some of these findings are similar to the findings for Hmong students with regard to United States residency (Timm et al., 1998). For example, Buriel (1975) reported that first and second generation Mexican immigrants had cognitive styles similar to traditional communities, but the third generation did not. Ramirez and Castaneda (1974) reported that Mexican American students were inclined toward a field sensitive learning style but that style varied in relation to assimilation, distance from Mexico, length of residence in the United States, impact of urbanization, and amount of prejudice encountered. Ramirez, Castaneda, and Herold (1974) studied three different types of communities: (a) Mexican American members with a primarily traditional Mexican culture; (b) dualistic with Mexican American members and a mixture of Mexican and Mexican American cultures; and (c) Mexican American members with manifest values from Anglo-American culture. They reported that the students from the dualistic community were in between the more field dependent members of the traditional community and the less field dependent members of the Anglo-oriented community. Other studies have reported similar results from traditional and dualistic communities (Laosa and DeAvila, 1979).

This section has focused on Mexican American students but other students may experience shifts in their cognitive style in relation to type of community, demographic considerations, and length of residency in the United States. In light of Creason's report (1992) that 40% of Hispanic students drop out of school, there is clearly a need for more research in this area.

Native Americans

Smith and Shade (1997) cited some Native American cultural factors that are conducive to a field sensitive cognitive style and socially sensitive interactive style. Among these are a conviction of the inherent good of all people, a belief that all people are interconnected with each other and with nature, and a view that cooperation is important for solving problems. According to Pepper and Henry (1997), socialization among Native Americans tends to be permissive and children are encouraged to experiment and to explore. Discipline does not mean obedience, but development of self control whereby children come to regard non-interference as normal. "Respect for individual dignity and personal autonomy are valued and youngsters are taught not to interfere in the affairs of others" (p. 170). Socialization further emphasizes observational and contextually relevant learning. Thus a cognitive style emerges that includes a preference for visual processing, an informal and exploratory learning preference, and a sensitivity to social cues.

An association between culture, ecology, and cognitive style has been reported among Native Americans by Kleinfeld (1970). In a testing situation for visual memory which required the ability to recall complex visual patterns, rural Inuit native children of all ages outperformed urban White children. These results were attributed to the ecology of a sparse Arctic landscape and to socialization that included a hunting tradition, both of which require visual acuity and an ability to perceive slight variations in the environment. Berry (1971) also reported visual acuity among urban Inuit subjects, in spite of less hunting experience. This finding suggests that Inuit child rearing practices emphasize visual learning, imitation, and non-verbal instruction.

Phillips (1978) reported that Native American students show a preference for learning by observation before they attempt to perform a task themselves. According to More (1987), Native American students prefer a visual to verbal learning mode and use images to learn concepts. These characteristics suggest a field sensitive cognitive style. Caldwell (1989) and Kasten (1992) reported a preference for cooperation in learning situations among Native American students.

Gender and Social Class

Within diverse groups, cognitive style may be mediated by gender and socioeconomic status. In a large study (636 boys and 638 girls), Park (1997) reported gender differences in style preferences across auditory, visual, and tactile modes and a significant gender difference in kinesthetic preference, with the girls reporting a higher preference. Some findings of gender differences within groups are reported above for Hmong and Mexican American students. Social class differences are also sometimes overlooked in the reporting of cognitive styles. Blackwell (1975) reported that African Americans in the professional/middle class and skilled blue collar class are more oriented to achievement, social striving, and consumerism in comparison with the economically disadvantaged. In an early study of Chinese, Jewish, Black, and Puerto Rican children from middle class and low income homes, however, Stodolsky and Lesser (1967) reported different patterns in cognitive processes for each ethnic group regardless of social class. In other words, ethnicity appeared to influence cognitive style more than social class. Banks (1988) also reported similar findings of the effect of ethnicity over social class and further reported that ethnic differences remained even when social class had changed for the better. These findings suggest that the interrelationship between ethnicity, gender, and social class is a complicated one in which cognitive styles may not necessarily be assumed by one dimension alone.

Educational Implications

The research findings considered in this review raise some important issues for classroom application. First, not all students in any cultural group necessarily approach learning in the same way. As Irvine and York (1995) assert, stereotyping occurs when inaccurate or general characteristics of a group are ascribed to, or assumed, for individuals. Second, educators must remember that learning is a fluid process and that students' cognitive styles are not static but may change across time. Findings of acculturation effects among Mexican American, Hmong, and other Asian Americans suggest that individual differences and acculturating experiences must be considered. Third, individuals may use different approaches to learning and problem solving, depending on the nature of the problem. Timm (1996) reported the following anecdote:

> . . . a teacher was required to take a widely marketed learning style test by her school administrator. During the test she considered how she approached the task of writing a report and answered the test items accordingly. Being suspicious of the test's validity, she asked to retake the test immediately. Because her hobby was sewing, this time she considered how she approached the task of creating a dress of her own design. The results of her two tests indicated two totally different learning styles (p. 190).

In other words, the creators of learning style tests have not generally taken into consideration the fact that people may use a variety of approaches that best suit the task at hand.

In spite of these caveats, the above review does reveal some general patterns for diverse groups. Shade (1997) suggested that cognitive processes are the result of socialization and cultural experiences and that the environment is interpreted through cultural filters and responded to accordingly. Thus, people who share common experiences develop similar processes of "conceiving, judging, and reasoning" (p. 134). Shade, Kelly, and Oberg (1997) offer a variety of teaching strategies for working in culturally responsive classrooms. As educators, we need to remember that our own interpretations, problem solving strategies, and communication styles are the result of our cultural experiences, but we sometimes forget our own ethnocentrism in these matters. And worse, we make judgments about the abilities of students that are filtered through our own cultural lenses.

I will close by sharing an incident, told to me by a Wisconsin teacher, that dramatically illustrates how a school task may be culturally biased and fail to take diverse cultural styles into account. Hmong students in a Wisconsin school were given a sorting test and asked to draw a circles around objects that did **not** belong. One test item included a picture of a hammer, a saw, a hatchet, and a fire. The "correct" answer was the fire because it was not a tool, but the Hmong students choose the hammer. Rather than assuming that the students were wrong, the teacher asked them why they had chosen the hammer. They told her that "you would use a saw or a hatchet to cut the wood for the fire but not the hammer." This context oriented and procedurally based answer is not surprising in Hmong culture. There is a lesson here for all of us.

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Volume 12, No. 3 Summer 1999

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MID-WESTERN EDUCATIONAL RESEARCHER

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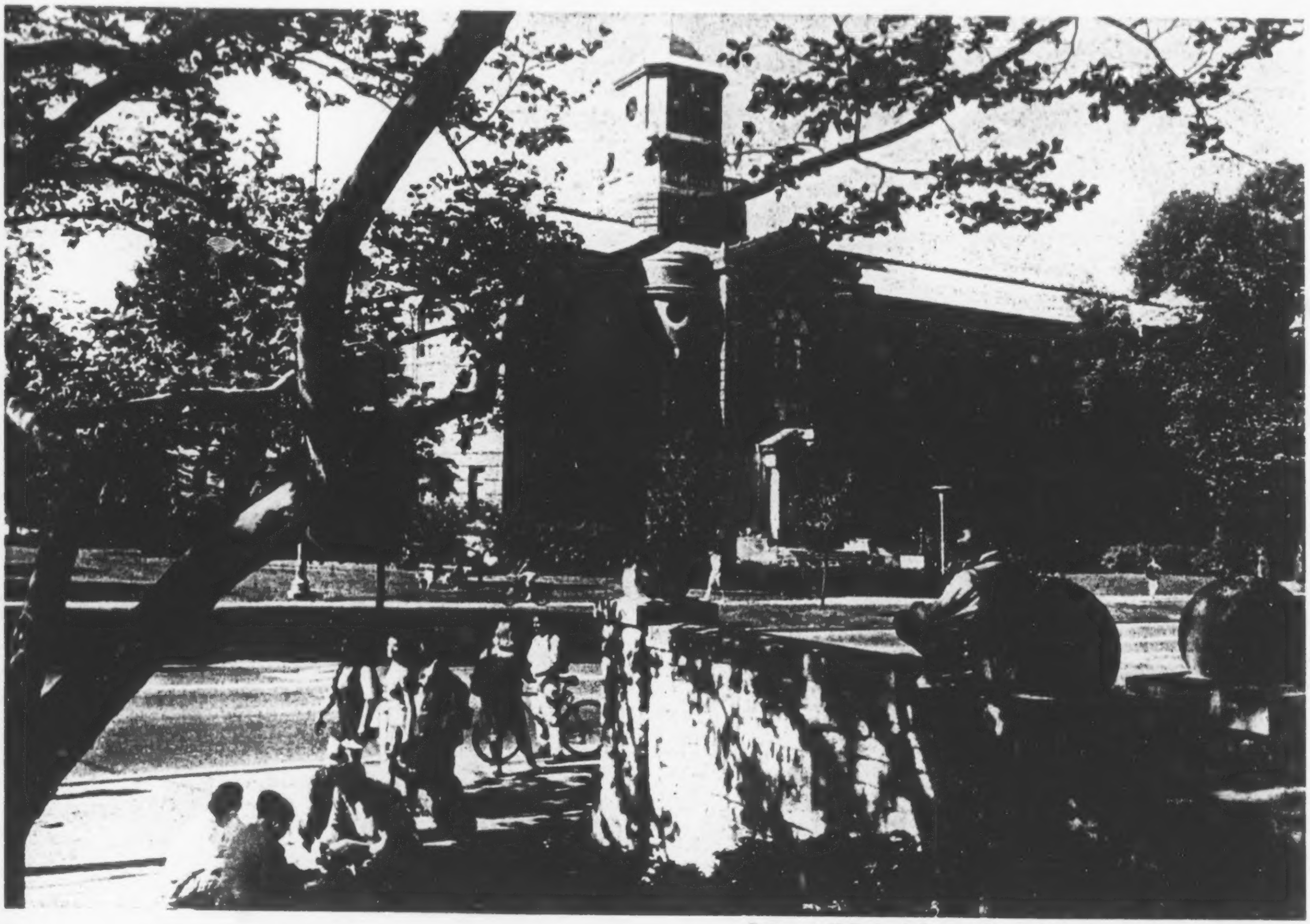
• Official Publication of the Mid-Western Educational Research Association •



Ramseyer Hall, the College of Education at The Ohio State University

Special Program Issue

October 13 – 16, 1999
Holiday Inn Mart Plaza, Chicago, IL

On the Cover

The Ohio State University is a leading comprehensive teaching and research university. The university's mission is the attainment of international distinction in education, scholarship, and public service. Ohio State is consistently among the top-ranked universities in the nation. Thirty-eight of Ohio State's 99 doctoral programs are included in the National Research Council's rankings of doctoral programs at 270 institutions of higher education. Of those 38 programs, 36 ranked first among all Ohio universities. Sixteen ranked among the top 25 programs in their discipline in the nation. As the state's leading comprehensive teaching and research university, Ohio State combines a responsibility for the advancement and dissemination of knowledge with a land-grant heritage of public service. It offers an extensive range of academic programs in the liberal arts, the sciences, and the professions. Few universities can match the breadth of academic offerings and related interdisciplinary opportunities, including 176 undergraduate majors, 220 graduate fields of study, as well as many professional programs. The university also offers more than 80 study abroad programs at major learning institutions overseas. Among its many treasures, Ohio State offers a magnificent environment for learning at one of the largest universities in the country.

Established in 1907, the College of Education at Ohio State University historically has been a major center of teacher preparation in Ohio and a recognized leader in the areas of educational research and technology, policy making and public service, and curriculum. With a 1999 US News and World report ranking of seventh in the nation, both the collage's programs and faculty consistently are among the very best nationally, making it one of the top colleges of education in the country. Of course, excellence in academic programs is supported by excellence in both faculty and students. Many of the College's faculty have garnered international, national and/or state awards.The recently restructured College of Education is comprised of three schools: the School of Educational Policy and Leadership, the School of Physical Activity and Educational Services, and the School of Teaching and Learning. The College has an on-going dedication to the improvement of the academic experience of its more than 3,000 graduate students and 400 undergraduate students. For almost 100 years, the College can boast that its mission has remained the same whether training professors in Indonesia to prepare teachers or organizing life-long learning for communities in the University District. Its core values are grounded in a commitment to learning and learners, advancing the understanding of learners, and reducing the barriers to learning for all children and youth, parents and adults.

Information for Contributors to the Mid-Western Educational Researcher

The *Mid-Western Educational Researcher* accepts research-based manuscripts that would appeal to a wide range of readers. All materials submitted for publication must conform to the language, style, and format of the *Publication Manual of the American Psychological Association*, 4th ed., 1994 (available from Order Department, American Psychological Association, P.O. Box 2710, Hyattsville, MD 20784).

Four copies of the manuscript should be submitted typed double-spaced (including quotations and references) on 8½ x 11 paper. Only words to be italicized should be underlined. Abbreviations and acronyms should be spelled out when first mentioned. Pages should be numbered consecutively, beginning with the page after the title page. Manuscripts should be less than 20 pages long. An abstract of less than 100 words should accompany the manuscript.

The manuscript will receive blind review from at least two professionals with expertise in the area of the manuscript. The author's name, affiliation, mailing address, telephone number, e-mail address (if available), should appear on the title page only. Efforts will be made to keep the review process to less than four months. The editors reserve the right to make minor changes in order to produce a concise and clear article. The authors will be consulted if any major changes are necessary.

Manuscripts should be sent with a cover letter to:

Mary K. Bendixen-Noe, *MWER* Co-Editor
1179 University Dr., The Ohio State University at Newark, Newark, OH 43055

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MID-WESTERN EDUCATIONAL RESEARCHER

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Welcome to MWERA-99!

E. Jane Williams
MWERA Vice-President
& 1999 Program Chair

On behalf of the Board of Directors, Officers, and the 1999 Program Committee I would like to welcome you to the 1999 Annual Meeting of the Mid-Western Educational Research Association. The program for this year, as in the past, is made up of papers, which have undergone a rigorous peer-review process. Many volunteers have devoted countless hours in reading, evaluating, and commenting on this year's submissions. It is the dedication of our membership that allows MWERA to have a meeting with only the highest quality presentations!

This year I am pleased to welcome two nationally recognized individuals who will share their critical insights in each day's invited addresses. Our meeting opens on October 13th, Wednesday evening, with an informal conversation and social with John Sikula, Dean of the College of Education at Ashland University (OH). Dean Sikula's Keynote Address on Thursday morning at 9:30am in the Sauganash Ballroom East, titled "Be an ARC – An American Reconstructioneer of Culture," is built from his work as editor of the second edition of Macmillan's Handbook of Research on Teacher Education.

The Thursday, October 16th Luncheon Address will feature Don Cruickshank who was a longtime member of MWERA, and is now Professor Emeritus at The Ohio State University, speaking about what makes good teachers. He has remained active pursuing his scholarly and research interests in research on teaching, particularly teacher clarity; research on teacher education; reflective teaching; the study of teacher problems and their recreation using simulations; and most recently, developing a framework for considering the question, What makes teachers good?

On Saturday October 16th we will welcome the current President of MWERA, Thomas S. Parish, Professor in the Department of Foundations and Adult Education at Kansas State University. President Parish's talk titled "Education in Crisis. Solution: Don't Get Tough, Just Get Connected!" seeks to address how and why our nation's schools are currently in trouble, and what teachers need to do in order to overcome these problems in the foreseeable future.

Member feedback has led to several changes for this year's meeting. More time has been allotted to papers within each session slot. Workshops and seminars have been scheduled throughout the conference with the only pre-conference workshop scheduled on Wednesday afternoon for new Association Council and MWERA Board members. Roundtable discussions and tabletop poster sessions have been scheduled on both Thursday and Friday. In addition to the regular roundtable sessions, 24 additional tables have been planned for moderated discussions on selected "Hot Topics". Time has been allotted on Thursday for participants to eat a quick lunch without missing any sessions, with the catered Luncheon scheduled for Friday at noontime. Division meetings have also been scheduled throughout the conference to allow participants to more easily attend the division meetings of their choice. Divisions D and F have elected to have Invited Speakers at their Business Meetings. This year I am also pleased to announce that we have several alternative sessions that appear to be quite interesting!

Overall, I think this year's meeting could be the best yet. I'm looking forward to seeing you in Chicago in October!

General Information

The 1999 Annual Meeting of the Mid-Western Educational Research Association will be held from Wednesday, October 13^{th} through Saturday, October 16th, at the Holiday Inn Mart Plaza in Chicago, Illinois. Registration and a pre-conference workshop will begin Wednesday afternoon, with the Kick-Off speaker starting the formal program at 8:00pm that evening. Thursday, Friday, and Saturday morning will consist of research papers presented in a variety of different formats, workshops, invited speakers, meetings, and social events. The conference will conclude following the final sessions at Noon on Saturday.

Meeting Registration is expected of everyone participating in or attending the 1999 annual meeting of the Mid-Western Educational Research Association. Registrants are provided a MWERA-99 Name Tag, which must be worn at all times while at the conference. Those planning to attend MWERA-99 are strongly encouraged to pre-register for the conference and workshops, and to make hotel reservations as soon as possible. Pre-registration and hotel reservations must be received by September 24, 1999. Registrations mailed after September 24th may not be received in time for processing, and on-site payment in the form of cash or personal checks will be expected. If double-payment is later determined, a refund will be issued. On-site registration and packet pick-up will be available at the registration desk on the 14th Floor of the Holiday Inn Mart Plaza at the following times:

Wednesday, October 13, 3:00 pm - 5:00pm
Thursday, October 14, 8:00am - 5:00pm
Friday, October 15, 8:00am - 5:00pm

Membership in the Mid-Western Educational Research Association provides reduced conference registration fees and a subscription to the Mid-Western Educational Researcher, the official MWERA publication. Attendees are encouraged to join. Conference presenters must be paid members for 1999.

MWERA **Publications** are available through pre-registration. These include the *Directory of MWERA Members* for $8 and *the MWERA 1999 Program Abstracts* for $6. These items may not be available at the conference unless ordered through pre-registration. If additional items are available they will be offered for sale at the registration table by cash or checks only.

This year's **Exhibit Hall** will feature publishers and others providing materials and services to educators on Friday from 9:00am to 4:00pm. The Exhibit Hall will be located in the lobby of the 14th Floor of the Holiday Inn Mart Plaza. This year we will have a sharing table for you to bring job announcements, fill out mentor forms, and share other information, which helps all of us.

Help **evaluate** the sessions and the annual meeting! We are requesting that all Session Chairs distribute evaluation forms to attendees at each session. In your registration packet you will also receive a form to evaluate the meeting as a whole. Please complete these forms and return them either directly to each Session Chair, or to the Registration Table on the 14th Floor lobby. Your comments are critical in improving our meetings.

Session Formats

Paper Presentation

Paper sessions allow presenters the opportunity to make short, relatively formal presentations in which they overview their papers to an audience. Three to four individual papers dealing with related topics are grouped into a single session lasting no longer than one hour and twenty minutes. The presenter(s) of each paper is (are) allowed 10 to 15 minutes to present the highlights of the paper. Sessions will have a Session Discussant who will, following all papers, provide comments and a critical review. A Session Chair moderates the entire session. Presenters are expected to provide complete copies of their papers to all interested audience members.

Roundtable Discussion/Poster

Roundtable Discussion/Poster sessions provide opportunities for interested individuals to participate in a dialogue with other interested individuals and the presenter(s) of the paper. Presenters are provided a small table around which interested individuals can meet to discuss the paper. Presenters may elect to provide small, tabletop poster-type displays, ancillary handouts, or other tabletop A/V materials to augment their discussions. Interested individuals are free to move into and out of these discussions/posters as they wish. Presenters are expected to make available complete copies of the paper to all attendees. Multiple roundtable discussion/poster sessions are simultaneously scheduled in a common session slot lasting fifty minutes.

Symposium

A symposium provides an opportunity for examination of specific problems or topics from a variety of perspectives. Symposium organizers have identified the topic or issue along with individual speakers who will participate in the session. Participants may be provided with papers or other handouts relevant to, reflective of, or drawn from the symposium, and may be encouraged to participate in discussions and/or focused exercises as a part of the symposium's activities. Symposia are typically scheduled for one hour and twenty minutes.

Workshop

Workshops provide an extended period of time during which the workshop leader(s) help participants develop or improve their ability to perform some process (e.g., writing grant proposals, using the latest features of the Internet, or conducting an advanced statistical analysis). Workshops have been scheduled throughout the conference, allowing attendees the opportunity to attend several workshops of their choosing. Most workshops are scheduled for a longer period of time than other sessions, and involve pre-registration.

Alternative Session

Only the imagination and creativity of the session organizer limit the form, topics, format and length of time of alternative format sessions. The presenter(s) of alternative sessions have recruited the major participants or speakers, developed and provided necessary materials. They will conduct or mediate the session as detailed in the program description.

Conference Events and Highlights

John Sikula will open MWERA-99 at the Kick-Off Session on Wednesday evening at 8:00pm in the Sauganash Ballroom East. Dean Sikula, a nationally-recognized Education Dean will lead an informal conversation about the condition of schooling in America -- what is our role in the research, public and political activism as we move into the 21st century? Where do we go from here? Sikula is past national president of the Association of Teacher Educators and was senior editor of Macmillan's Handbook of Research on Teacher Education, Second Edition, in 1996. This informal kick-off social is sponsored by Riverside Publishing Company.

Division Meetings have been scheduled conflict-free throughout the day on Thursday and Friday. Divisions D and F have chosen to have invited speakers prior to their meeting. Participation in a division is an important part of MWERA membership. Get to know the other folks in the division of your choice and become active in the happenings of that division, including helping to recruit new members and plan next year's conference.

John Sikula, Dean of the College of Education at Ashland University, will give the Keynote Address titled "Be an ARC: An American Reconstructioneer of Culture" on Thursday at 9:30am in the Sauganash Ballroom East. His address is built from his work as editor of Macmillan's Handbook of Research on Teacher Education, Second Edition. Sikula will be available for questions, in a Follow-Up session beginning at 10:30am in the Shakespeare Hotel.

New Members are encouraged to attend a new member welcome session Thursday morning at 10:30am in The Bull's Head room. Come meet other MWERA members both new and old, and find out what this wonderful organization is all about.

The **MWERA Association Council** will hold its annual meeting over lunch on Thursday, beginning at Noon in the Sauganash Ballroom East. All Association Council members are expected to attend. New Council Members and Officers should also plan on attending a special orientation workshop scheduled for Wednesday afternoon from 3:10pm to 5:30pm, conducted by current Past-President Kim Metcalf.

Two **Roundtable Discussion/Poster** sessions have been scheduled for MWERA-99, both running from 3:10pm to 4:00pm on Thursday and Friday in the Sauganash Ballroom East. Numerous interesting presentations on a variety of topics will take place during these times. In addition, a number of tables will be hosted by presenters prepared to lead participants in a guided discussion of today's Hot Topics in education! Organized again by Tom Parish, MWERA's President, these hot topic tables add a new dimension to these two sessions!

The **Editorial Board** of the Mid-Western Educational Researcher will meet on Thursday afternoon at 4:10pm in the Mansion House. All members of the Editorial Board should attend.

The **Cracker Barrel Social** will be held from 6:00pm to 7:30pm in the Wolf Point Pre-Function Room on Thursday. This informal event offers a chance to relax, mix, and mingle. A cash bar and snacks will be provided.

Everyone is encouraged to attend the annual **Business Meeting**, scheduled on Friday from 9:30am through 10:20am in the Sauganash Ballroom East. President Thomas S. Parish will preside over an agenda of issues critically important to the association. Your input is both needed and welcome!

Donald R. Cruickshank, whom many of you know from his longstanding membership in MWERA, Professor Emeritus of Teacher Education at The Ohio State University, will deliver the Luncheon Address titled "What Makes Teachers Good?" on Friday during the catered luncheon. Cruickshank is a leading researcher in Teacher Education. Remember, you must pre-register for the conference in order to be guaranteed a seat at the Luncheon! Immediately following the Luncheon Dr. Cruickshank will provide a follow-up address, and be available for questions, in the Lake House beginning at 1:40pm.

A **Special Workshop**, titled "Writing Proposals for Funded Research Projects" will take place on Thursday morning at 10:30am in the Shakespeare Hotel. This workshop, which is designed at helping all of our current graduate students, focuses on the elements of a proposal for funding research grants. All current (and former) graduate students are invited to attend.

The highlight of Friday evening will be the **President's Reception**, scheduled from 9:00pm until midnight in the Wolf Point Pre-Function Room (15th floor of the Holiday Inn Mart Plaza). Your host for the evening will be Tom Parish, the current President of MWERA. This reception promises to be a great time with fine food, drink and company for all!

Program Chair Jane Williams will be available to listen to your comments about the 1999 Annual Meeting at the **Conference Feedback** session Saturday morning starting at 8:00am in The Bull's Head room. This session provides you with an opportunity to elaborate on the comment forms from each session. Your feedback will be brought forward into the **Conference Planning** session scheduled for 10:30am in the same room. *All Senior and Junior Division Chairs for the 2000 conference should attend this Conference Planning session to get a jump-start on next year!*

Thomas S. Parish, Professor in the Department of Foundations and Adult Education at Kansas State University and President of MWERA, will deliver the Presidential Address on Saturday at 9:30am in the Merchants Hotel. President Parish's talk titled "Education in Crisis. Solution: Don't Get Tough, Just Get Connected!," seeks to address how and why our nation's schools are currently in trouble, and what teachers need to do in order to overcome these problems in the foreseeable future.

Professional Development: Workshops & Seminars

MWERA will sponsor a series of Professional Development Workshops held in conjunction with the Annual Meeting. These workshops are organized to meet specific training needs and to transmit specific research, development, and evaluation skills.

NOTE: No fee is charged for the workshops; however, advance registration is strongly encouraged. All workshops are subject to cancellation for insufficient registration. Workshops may be open to on-site and same-day registration, space permitting.

Workshops

W.1510.AH MWERA Association Council and Officers Orientation

MWERA — Workshop

Wednesday, 3:10 pm to 5:30 pm — American House

CHAIR *Kim K. Metcalf, Center for Evaluation, Indiana University*

NOTES *Maximum Enrollment **25**; Fee: N/C*

PRESENTERS

Kim Metcalf, Center for Evaluation, Indiana University; Thomas S. Parish, Kansas State University; Jean W. Pierce, Northern Illinois University; Teresa Strand, Historian

This session will provide orientation for newly elected Association Council members and MWERA officers. The session will overview our By-Laws, Policies and Procedures, history, and issues that all elected officials should be familiar with as they start serving the Association. All members holding elected positions within the Association are requested to attend this session.

T.1030.ST Writing Proposals for Funded Research Projects

MWERA — Workshop

Thursday, 10:30 am to 1:00 pm — Steamboat Hotel

CHAIR *Gay Su Pinnell, The Ohio State University*

NOTES *Maximum Enrollment **30**; Fee: N/C*

PRESENTERS

Gay Su Pinnell, The Ohio State University

This workshop focuses on the elements of a proposal for funding research grants. The presenter will describe types of proposals, elements of successful proposals as well as procedures for developing them.

F.1510.LH Workshop in Historical Research

Division F — Workshop

Friday, 3:10 pm to 5:30 pm — Lake House

CHAIR *Louise E. Fleming, Ashland University*

NOTES *All divisions welcome. Newer researchers or people trying to conduct and publish historical research are especially encouraged to attend this session.*

*Maximum Enrollment **30**; Fee: N/C*

PRESENTERS

Louise E. Fleming, Ashland University; Elizabeth Johnson, Eastern Michigan University

This is a workshop in historical research, what it is and how to conduct it. Participants are invited to bring copies of a work-in-progress; following the presentation of method; the participants and presenters will read and constructively critique one another's work.

F.1610.AH Strategies for Teaching With Cases in Teacher Education

Division C — Workshop

Friday, 4:10 pm to 5:30 pm — American House

CHAIR *Mary R Sudzina, The University of Dayton*

NOTES *Maximum Enrollment **30**; Fee: N/C*

PRESENTERS

Mary R Sudzina, The University of Dayton; Theodore Kowalski, Ball State University

This workshop will focus on strategies for successfully integrating case studies in undergraduate and graduate teacher education programs. The session will begin with an introduction to teaching with cases and then discuss the myths of case-based teaching.

S.0800.AH MWERA Website Workshop

MWERA — Workshop

Saturday, 10:30 am to 11:50 am — Columbian House

CHAIR *Jeffrey B. Hecht, Illinois State University*

NOTES *Maximum Enrollment **30**; Fee: N/C*

PRESENTERS

Jeffrey B. Hecht, Illinois State University

Strongly recommended for Associate Program Chairs, Division Senior and Junior Chairs who have an interest in utilizing the on-line proposal submission and review system for future conferences.

Invited Speakers, Symposium, and Panels

Kick-Off Fireside "Chat" & Social with John Sikula

MWERA — Invited Speaker

Wednesday, 8:00 pm to 9:30 pm — Sauganash Grand Ballroom East

CHAIR *E. Jane Williams, The Ohio State University*

NOTES *Hosted by Riverside Publishing Company*

CONVERSATION & SOCIAL

John Sikula, Dean, College of Education, Ashland University

Join us for an informal conversation about the condition of schooling in America. What is our role in the areas of research, public and political activism as we enter the 21st century? Where do we go from here?

Keynote Address – John Sikula, Dean College of Education, Ashland College

"Be An ARC - An American Reconstructioneer of Culture"

MWERA — Invited Address

Thursday, 9:30 am to 10:20 am — Sauganash Ballroom East

Luncheon Address – Donald R. Cruickshank, Emeritus, The Ohio State University

"What Makes Teachers Good?"

MWERA — Invited Address

Friday, 12:00 pm to 1:30 pm — Sauganash Grand Ballroom West

T.1340.SH MWERA: Invited Symposium -- Building Capacity for Literacy Teaching and Learning in Urban Schools

Thursday, 1:40 pm to 3:00 pm — Shakespeare Hotel

PRESENTATIONS

A Social History of the Center for School Improvement, University of Chicago. *Sharon Greenberg & Tony Bryk, Center for School Improvement, University of Chicago*

Literacy Coordinator as Instructional Leader: The Development of Technical Knowledge and Skill. *Gay Su Pinnell & Carol Lyons, The Ohio State University*

Literacy Coordinator: Changing the Political Dynamics. *Sharon Greenberg, Center for School Improvement, University of Chicago*

A School-based Literacy Assessment System: The Technical Core of Progress for All. *David Kerbow, Center for School Improvement, University of Chicago*

Evaluation of Achievement Gains at the Primary Level. *David Kerbow, Julia Gwynne & Brian Jacob, Center for School Improvement, University of Chicago*

F.1340.WS Division K: Invited Panel of State Department of Education to Discuss "Setting State Teacher Preparation Standards"

Friday, 1:40 pm to 3:00 pm — Western Stage House

CHAIR *Carmen Giebelhaus, University of Dayton*

NOTES

Setting State Teacher Preparation Standards. *Carmen Giebelhaus, University of Dayton; John Nichelson, Ohio Department of Education; Kathryn Lind, Wisconsin Department of Public Instruction*

Receptions and Socials

Kick-Off Fireside "Chat" & Social with John Sikula

Wednesday, 8:00 pm - 9:30 pm, Sauganash Ballroom East

Hosted by the Riverside Publishing Company.

Cracker Barrel Social

Thursday, 6:00 pm - 7:30 pm, Wolf Point Pre-Function Room

A MWERA tradition!

President's Reception

Friday, 9:00 pm - Midnight, Wolf Point Pre-Function Room

Hosted by Thomas S. Parish, MWERA President.

Exhibits

All registrants are encouraged to visit the Exhibits in the Hallway of the 14th Floor Lobby. MWERA is pleased to welcome back many of the firms, which have exhibited with us before, along with several new ones! The Exhibits will be open from 9:00am to 4:00pm on Friday.

Program on the Internet

This year's Annual Program is available on the Internet at:

http://www.tierlab.ilstu.edu/MWERA

The on-line program contains all of the information in the printed program. In addition, users may search the program for presentations matching specific descriptors, key words in the title or abstract of the paper, or specific presenters. In addition full text of each presentation's abstract is available on-line. This site is courtesy of the Technological Innovations in Educational Research Laboratory in the Department of Educational Administration and Foundations at Illinois State University, Jeffrey B. Hecht, Principal Investigator.

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Brad Oliver, *Ball State University*

Division C: Learning and Instruction
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Cynthia Campbell, *Northern Illinois University*

Division D: Measurement and Research Methodology
Gene Kramer, *American Dental Association--Chicago*
Janet K. Sheehan-Holt, *Northern Illinois University*

Division E: Counseling and Human Development
Linda Bakken, *Wichita State University*

Division F: History and Philosophy
Louise E. Fleming, *Ashland University*
Elizabeth Johnson, *Eastern Michigan University*

Division G: Social Context of Education
Mary Ann Wham, *University of Wisconsin - Whitewater*
Celina V. Echols, *Southeastern Louisiana State University*

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Division J: Postsecondary Education
Tom J. Cody, *Western Illinois University*
Rodney J. Greer, *Western Illinois University*

Division K: Teaching and Teacher Education
Maria Elena Galvez-Martin, *The Ohio State University-Lima*
James Salzman, *Ursuline College*

Historian
Teresa Strand, *Strand Consultation Services*

Exhibits
Sharon McNeely, *Northeastern Illinois University*

Proposal Reviewers

The 1999 Program Committee wishes to express our appreciation to the following individuals who donated their time to assist in the process of reviewing proposals:

Robert Barcikowski, *Ohio University*
Ted Batson, *Indiana Wesleyan University*
William I Bauer, *Ball State University*
Mary Bendixen-Noe, *The Ohio State University - Newark*
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Leann Derby, *The United States Air Force*
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Sue Drummer, *The Ohio State University*
Celina V. Echols, *Southeastern Louisiana State University*
Jennifer Fager, *Western Michigan University*
Kathleen Flanagan, *Ashland University*
Melissa Freiberg, *University of, Wisconsin - Whitewater*
Maria Elena Galvez-Martin, *Ohio State University -- Lima*
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Arthur Garmon, *Western Michigan University*
Gregory Gerrick, *Ashland University*
Carmen Giebelhaus, *University of Dayton*
Rodney J Greer, *Western Illinois University*
Philip Griswold, *Ashland University*
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Jeffrey B. Hecht, *Illinois State University*
Molly Helminger, *Ballinger ISD*
Larry W. Henriksen, *Ball State University*
Frank R. Hogan, *Beeville ISD*
Young-Suk Hwang, *Western Illinois University*
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Judy Jackson May, *Bowling Green State University*
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Aaron Kercheval, *Indiana University - Bloomington*
Derick Kiger, *School District of Beloit*
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Tom Knapp, *The Ohio State University, College of Nursing*
Gene A. Kramer, *American Dental Association*
Anna Kubiak, *Educational Testing Service*
Dr. Kaetlyn Lad, *George Washington University*
Kevin C. Larkin, *American Dental Association*
Jean Leicester, *Winona State University*
Dennis W. Leitner, *Southern Illinois University*
William Loadman, *The Ohio State University*
Celeste Matthews, *Winona State University*
James J. McCluskey, *Central Michigan University*
Oscar McKnight, *Ashland University*
Craig A. Mertler, *Bowling Green State University*
Kim Metcalf, *Indiana University, Center for Evaluation*
Francine Michel, *The Ohio State University*
Joyce Miller, *Mount Vernon Nazarene College*
Greg Montalvo, *Western Illinois University*
Jean Morrow, *Emporia State University*
Peggy P. Munke, *Dept of Sociology, Social Work and Criminal Justice*
Cassandra Myers-Tate, *Southern Illinois University*
Carole Newman, *The University of Akron*
Isadore Newman, *The University of Akron*
Thomas R. O'Neill, *American Society of Clinical Pathologists*
Brad E Oliver, *Ball State University*
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Sarah Peterson, *Duquesne University*
Barbara S. Plake, *University of Nebraska*
John Pohlmann, *Southern Illinois University*
Mark Pomplun, *University of Kansas*
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Jay R Price, *University of Wisconsin - Stevens Point*
Patricia R Renick, *Wright State University*
Jacqueline Rickman, *Western Illinois University*
Dan Robinson, *University of Louisville*
Bruce Rogers, *University of Northern Iowa*
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Sara Sage, *Indiana University - South Bend*
Jim Salzman, *Ursuline College*
Beth Satory, *University of Wisconsin, LaCrosse*
Nancy G Saunders, *Indiana Wesleyan University*
Dale H. Schunk, *Purdue University*
William L. Sharp, *Southern Illinois University*
Janet Sheehan-Holt, *Northern Illinois University*
Wallace Sherlock, *University of Wisconsin - Whitewater*
Richard M. Smith, *Rehabilitation Foundation, Inc.*
Christine K. Sorensen, *Northern Illinois University*
Carol Spradling, *Northwest Missouri State University*
Anne Stinson, *University of Wisconsin-Whitewater*
William B. Thiel, *Thiel Enterprises*
Anne Marie Thomas, *The Ohio State University*
Donna Waechter, *University of Akron*
Aimin Wang, *Miami University*
Suzanne Wesson, *Corpus Christi ISD*
Mary Ann Wham, *University of Wisconsin-Whitewater*
Stan Wigle, *Indiana University Northwest*
Elizabeth A. Wilkins-Canter, *Towson University*
Rod Winters, *Winona State University*
Connie J. Wise, *Illinois State Board of Education*
John M Zbikowski, *University of Wisconsin-Whitewater*

Explanation of Session Numbers

Example: **T.0800.LH** **The Evolving Roles of the Modern Principal**

T	Day of Session	**W** for Wednesday, **T** for Thursday, **F** for Friday, and **S** for Saturday
0800	Time Session Begins	Using a 24 hour clock: 0800 is 8:00am, 1340 is 1:40pm
LH	Room	**AH** is American House, **CH** is Columbian House, **LH** is Lake House, **MA** is Mansion House, **ME** is Merchants Hotel, **SE** is Sauganash Ballroom East, **SW** is Sauganash Ballroom West, **SH** is Shakespeare Hotel, **ST** is Steamboat Hotel, **BH** is The Bull's Head, **WS** is Western Stage House, and **WP** is the Wolf Point Pre-Function Room

Conference Registration and Hotel Reservation

Attending MWERA-99 begins with a two-step process: registering for the conference and reserving a room at the hotel. These two steps require the completion of two different forms, mailed to two different locations, with different information needed and deposits. **DO NOT SEND YOUR CONFERENCE REGISTRATION TO THE HOTEL, OR SEND YOUR HOTEL RESERVATION IN WITH YOUR CONFERENCE REGISTRATION!** This can delay your registration/reservation, or result in your not being registered for the conference and/or not having a place to stay in Chicago.

Pre-Registration vs. On-Site Registration

MWERA allows both pre-registration and on-site registration; however, for the following reasons, pre-registration is strongly encouraged. Pre-registrants have first opportunity to enroll in Workshops, to purchase Materials, and to attend the catered Luncheon on Friday. Pre-registration is also less expensive! To pre-register for the 1999 Annual Meeting you must complete the form on the following page and return it, with your check or money order for payment in full, to Jean W. Pierce, MWERA's Executive Officer.

Pre-registrations must be postmarked by September 24th to qualify for the reduced rates!

On-site registration will be available at the registration desk on the 14th Floor of the Holiday Inn Mart Plaza beginning at 1:00 pm on Wednesday, October 13th and continuing though 5:00pm on Friday, October 15th.

The dates of our conference (October 13 - 16, 1999) are very busy ones in the city of Chicago, with several conventions and activities all going on at the same time. Hotel space will be tight, if not completely unavailable, to those who do not have confirmed reservations. Our convention hotel, the Holiday Inn Mart Plaza, is holding a block of rooms for MWERA-99 attendees; however, they will only hold these rooms until September 24th! To ensure that you have a place to stay please make your reservations with the hotel early, since once these rooms are gone we cannot guarantee housing anywhere in downtown.

Hotel Facilities and Services

Adjacent to the Chicago Merchandise Mart and the World Trade Center - Chicago, the Holiday Inn Mart Plaza is conveniently located in downtown Chicago, only 45 minutes from Chicago's O'Hare and Midway airports and just a short ride from Union Station. The hotel is very close to the entertainment district of River North, Chicago's most exciting neighborhood, and the Loop. Newly renovated guest and meeting rooms promise a comfortable stay. Numerous dining spots are convenient to the hotel, as well as the Inn's own attractions: Regions, An American Cafe; Brio, the Lounge with Attitude; and The Lobby Bar. Services at the hotel include: 24 hour bellman service, self-service laundry (on the 23rd floor), an attached parking facility with unlimited in/out privileges at a reasonable rate, drug store, florist, gift shop, U.S. Post Office, FedEx Office, Bank, and a retail indoor mall - the shops at the Mart. Hourly computer rental, photocopy, and layout production services are all located within a short walk of the hotel.

MWERA will provide a standard overhead projector in each presentation room throughout the conference. Presenters may use this projector with overhead transparencies or computer-projection systems; however, it is up to each presenter to either provide his or her computer and projection unit (e.g., LCD plate) or to rent one from the hotel. The hotel has a wide variety of audio-visual equipment for rent. Contact the hotel directly well before the meeting for your needs, hotel pricing and availability, and payment.

MWERA-99 Conference Registration Form

October 13 – 16, 1999 – Holiday Inn Mart Plaza, Chicago, IL

Your Name: ______________________________
(First Name) (Middle Initial) (Last Name)

Affiliation: ______________________________

Mailing Address: ______________________________

Office Phone: ( ) __________ FAX: ( ) __________

Home Phone: ( ) __________ Email: __________

Highest Degree: __________ Institution Awarding Degree: __________

MWERA Division Preference: __________ Area of Specialization: __________

Is this your first MWERA conference? ☐ **Yes** ☐ **No**

If YES, how did you learn about MWERA? __________

Workshop Registration

Advance registration for workshops is strongly encouraged. All workshops are subject to cancellation for insufficient registration, and are open to on-site and same-day registration on a space-permitting basis only.

☐	W.1510.AH	**No Fee**
☐	T.1030.ST	**No Fee**
☐	F.1510.LH	**No Fee**
☐	F.1610.AH	**No Fee**
☐	S.0800.AH	**No Fee**

Meeting Registration	**By 09/24/99**	**After 09/24/99**
MWERA Member	$45.00	$55.00
Non-Member	$50.00	$60.00
Student member **(see note below)**	$30.00	$35.00
Attending Luncheon Only	$25.00	$28.00

TOTAL Registration Fee Enclosed: __________

Membership Dues	**Regular**	**Student**
1999 Membership **(see note below)**	$25.00	$15.00
2000 Membership	$25.00	$15.00
Life Membership	$250.00	$250.00

TOTAL Membership Dues Enclosed: __________

MWERA-99 Materials	**Cost per**	**Qty**	**Total**
MWERA Membership Directory	$8.00	_____	_____
MWERA-99 Program Abstracts	$6.00	_____	_____

TOTAL Materials Costs Enclosed: __________

TOTAL AMOUNT ENCLOSED: __________

The Friday Luncheon is included in the Registration Fee. Please help us plan for the correct number of attendees!

Will you be attending the Friday Luncheon? ☐ Yes ☐ No

Will you require a special menu? ☐ Yes ☐ No If YES, please describe: __________

Will you be staying at the Holiday Inn Hotel? ☐ Yes ☐ No If YES, which nights (circle) **Tue Wed Thu Fri Sat**

Make your check or money order payable to "**MWERA.**" **Register before September 24, 1999 to receive the lowest conference rates!** Persons applying for Student membership must provide proof of student status (copy of a current student ID or registration or letter from advisor). All presenters must register for the meeting and be a current (1999) member of the Association. New presenters may join using this registration.

Mail completed form and payment to:

Dr. Jean Pierce
Northern Illinois University
Department EPCSE
DeKalb, IL 60115

Holiday Inn Mart Plaza Hotel Reservation Form

Mid-Western Educational Research Association Meeting

October 13 – 16, 1999

Your Name: ______________________________
(First Name) (Middle Initial) (Last Name)

Company: ______________________________

Mailing Address: ______________________________
____

Day Telephone: ( ) ____________________

Accommodations Requested

Arrival Date: ___/___/___

Departure Date: ___/___/___

Bed Type: ☐ Single (1 King) ☐ Double (2 Doubles)

Smoking Preference: ☐ Smoking ☐ Non-Smoking

Number of People:	☐ Single	($125.00 / night)
	☐ Double	($140.00 / night)
	☐ Triple	($155.00 / night)
	☐ Quad	($170.00 / night)

Name(s) of Roommate(s) (if any): ______________________________

Special Needs: ______________________________

To confirm your reservation, the hotel requires a first nights deposit or a credit card guarantee.

Method of Payment

☐ Check or Money Order

☐ Credit Card (Indicate card): ☐ MasterCard ☐ Visa ☐ American Express ☐ Discover ☐ Diners Club

Credit Card Number: ______________________________

Name on Credit Card: ______________________________

Expiration Date: ______________________________

Signature: ______________________________

You must cancel this reservation prior to 6:00pm on your expected date of arrival to avoid billing on your credit card for the first night's room and tax or the loss of your deposit. The above rates do not include state and local taxes. Automobile parking (non-valet) is available at the hotel for an additional $12 per day (plus taxes) for registered hotel guests. Check in time is 3:00pm; check out time is Noon. On site luggage storage is available for early arrival and late check out. **The above group rates are only guaranteed until SEPTEMBER 24, 1999!**

Mail FAX, or telephone completed form and deposit information to:

Holiday Inn Mart Plaza
350 North Orleans
Chicago, IL 60654
(312) 836-5000
FAX: (312) 222-9508

Getting to the Conference

Holiday Inn Mart Plaza
350 North Orleans
Chicago, IL 60654
(312) 836-5000
FAX: (312) 222-9508

O'Hare Airport to the Holiday Inn (3 Options)

1. **Take a CTA train** to downtown for about $1.25. Catch the train in the basement of Terminal 3. Take the "A" or "B" line. Get off at the Clark/Lake station. Transfer to the "Brown" line (Ravenswood), and take this to the Merchandise Mart.
2. **Take the Continental Airport Bus** for about $15.00 one way or $28.00 round trip. No reservations are required from the airport. See the agent at the booth in the lower level baggage claim area.
3. **Take a cab** for about $28.00 one way. Wait in the cab stand area. In off-hours a ride takes about 30 minutes. In rush hours (7 - 10am, 3 - 7 pm) the ride could take an hour or more. Tips average 15 - 20%.

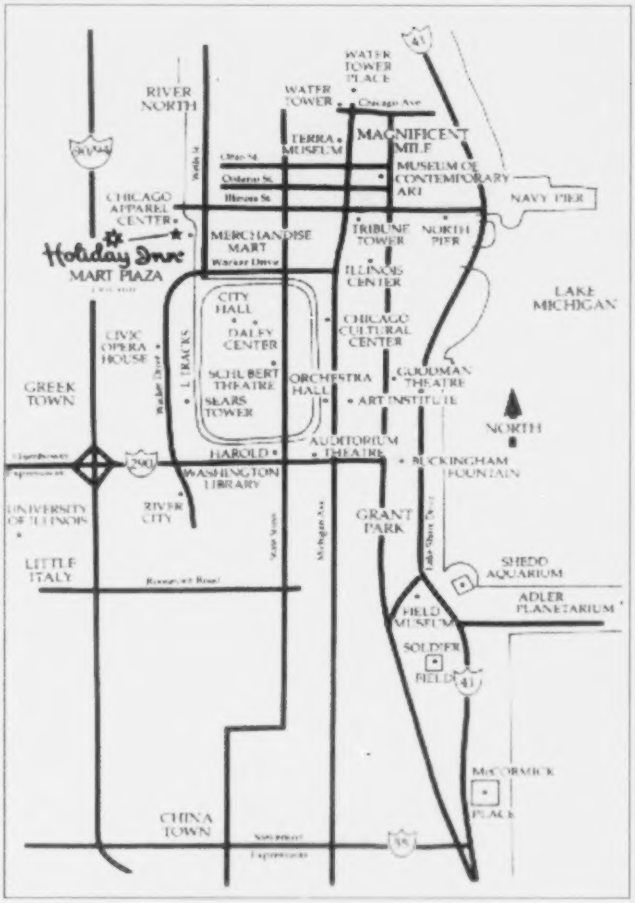
Midway Airport to the Holiday Inn (3 Options)

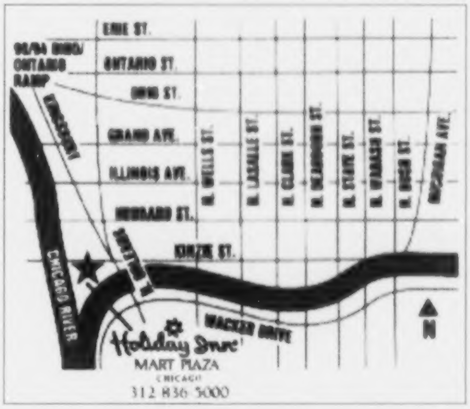
1. **Take a CTA train** to downtown for about $1.25. Catch the train at the east end of the airport. Get off at the Clark/Lake station. Transfer to the "Brown" line (Ravenswood), and take this to the Merchandise Mart.
2. **Take a Continental Airport Bus** for about $11.00 one way or $20.00 round trip. No reservations are required from the airport. See the agent at the booth for tickets.
3. **Take a cab** for about $25.00 one way. Wait in the cab stand area. See O'Hare information above regarding time.

Driving and Parking Downtown (3 Options)

1. **From the South, East, or West**: Take I-90/94 (Dan Ryan). Exit at Washington Street East (Exit 51C). Turn right onto Washington. Go to Wacker Drive and turn left. Make another left at Orleans Street and cross over the bridge. The hotel is on the left-hand side.
2. **From I-88**: I-88 connects to 290 (Eisenhower). Exit at Franklin Street. Follow Franklin until it turns into Orleans Street (just over the river). The hotel is on the left-hand side.
3. **From the North, I-90/94 (Kennedy Expressway):** Exit at Ohio Street. Go to Wells Street (3rd light). Turn right, cross the river and turn right onto Wacker Drive. Go one block, turn right onto Orleans, and cross the bridge. The hotel is on the left-hand side.

The Holiday Inn Mart Plaza sits atop The Apparel Center. Take the Elevators on the first floor of The Apparel Center to the 15th Floor Hotel Lobby.


41
WATER TOWER PLACE
RIVER NORTH
WATER TOWER
Chicago Ave
90/94
TERRA MUSEUM
MAGNIFICENT MILE
Ohio St
Ontario St
Illinois St
MUSEUM OF CONTEMPORARY ART
NAVY PIER
CHICAGO APPAREL CENTER
Holiday Inn
MART PLAZA
MERCHANDISE MART
Wacker Drive
TRIBUNE TOWER
NORTH PIER
ILLINOIS CENTER
LAKE MICHIGAN
CITY HALL
DALEY CENTER
CIVIC OPERA HOUSE
L TRACKS
CHICAGO CULTURAL CENTER
SCHUBERT THEATRE
ORCHESTRA HALL
GOODMAN THEATRE
GREEK TOWN
SEARS TOWER
ART INSTITUTE
NORTH
AUDITORIUM THEATRE
HAROLD
290
WASHINGTON LIBRARY
BUCKINGHAM FOUNTAIN
UNIVERSITY OF ILLINOIS
RIVER CITY
GRANT PARK
Lake Shore Drive
LITTLE ITALY
Roosevelt Road
SHEDD AQUARIUM
ADLER PLANETARIUM
FIELD MUSEUM
SOLDIER FIELD
41
McCORMICK PLACE
CHINA TOWN
Stevenson Expressway
55


ERIE ST.
90/94 BIRD/ ONTARIO RAMP
ONTARIO ST.
OHIO ST.
GRAND AVE.
ILLINOIS AVE.
HUBBARD ST.
KINZIE ST.
N. WELLS ST.
N. LASALLE ST.
N. CLARK ST.
N. DEARBORN ST.
N. STATE ST.
N. WABASH ST.
N. RUSH ST.
MICHIGAN AVE.
CHICAGO RIVER
WACKER DRIVE
N
Holiday Inn
MART PLAZA
CHICAGO
312 836 5000

Chronological Listing of Sessions
Wednesday, October 13, 1999

W.1510.AH MWERA Association Council and Officers Orientation

MWERA — Workshop

Wednesday, 3:10 pm to 5:30 pm — American House

CHAIR *Kim K. Metcalf, Indiana University, Center for Evaluation*

NOTES *Maximum Enrollment 25: Fee: N/C*

PRESENTERS

Kim Metcalf, Indiana University, Center for Evaluation; Thomas S. Parish, Kansas State University; Jean W. Pierce, Northern Illinois University, Teresa Strand, Historian

This session will provide orientation for newly elected Association Council members and MWERA officers. The session will overview our By-Laws, Policies and Procedures, history, and issues that all elected officials should be familiar with as they start serving the Association. All members holding elected positions within the Association are requested to attend this session.

W.2000.SE Kick-Off Fireside "Chat" & Social with John Sikula

MWERA — Invited Speaker

Wednesday, 8:00 pm to 9:30 pm — Sauganash Grand Ballroom East

CHAIR *E. Jane Williams, The Ohio State University*

NOTES *Hosted by Riverside Publishing Company*

CONVERSATION & SOCIAL

John Sikula, Dean, College of Education, Ashland University

Join us for an informal conversation about the condition of schooling in America. What is our role in the areas of research, public and political activism as we enter the 21st century? Where do we go from here?

- - - - - - -

New Member Welcome
Thursday Morning at 10:30am in The Bulls Head!

- - - - - - -

Division Meetings have been scheduled throughout the day on both Thursday and Friday!

Division A: Administration
Friday 10:30am – 11:50am -- West Stage House

Division B: Curriculum Studies
Thursday 1:40pm – 3:00pm -- Mansion House

Division C: Learning and Instruction
Friday 1:40pm – 3:00pm -- Mansion House

Division D: Measurement and Research Methodology
Friday 10:30am – 11:50am -- Shakespeare Hotel

Division E: Counseling and Human Development
Friday 10:30am – 11:50am -- Columbian House

Division F: History and Philosophy
Friday 10:30am – 11:50am -- Columbian House

Division G: Social Context of Education
Friday 10:30am – 11:50am -- Columbian House

Division H: School Evaluation and Program Development
Friday 10:30am – 11:50am -- Mansion House

Division I: Education in the Professions
Friday 10:30am – 11:50am -- Mansion House

Division J: Postsecondary Education
Friday 10:30am – 11:50am -- West Stage House

Division K: Teaching and Teacher Education
Friday 10:30am – 11:50am -- The Bulls Head

Chronological Listing of Sessions
Thursday, October 14, 1999

T.0800.AH **Division J Business Meeting**

Division J: Postsecondary Education — **Meeting**
Thursday, 8:00 am to 9:20 am — American House
SR. DIV CHAIR: *Tom Cody, Western Illinois University*
JR. DIV. CHAIR: *Rodney J. Greer, Western Illinois University.*

T.0800.BH **Presentation of Various Statistical and Measurement Issues**

Division D: Measurement and Research Methodology — **Paper Presentation**
Thursday, 8:00 am to 9:20 am — The Bulls Head
CHAIR *Isadore Newman, University of Akron*
DISCUSSANT *Jeffrey B. Hecht, Illinois State University*
PRESENTATIONS

A Realistic Look At One-Way ANOVA: Comparisons Among Parametric And Nonparametric Tests. *Robert S. Barcikowski, Ohio University; Younes Alyounes, Ohio University*

Determining the Multivariate Assumptions of a Four Dimensional Instrument Designed to Follow-up Graduates from Research University Teacher Education Programs and Other Teacher Education Programs. *Mohammed A Rahman, The Ohio State University, William E Loadman, Ph. D., The Ohio State University*

Logistic Regression Model for the Prediction of School Enrollment of Children With Disabilities in Kenya. *Dimiter M. Dimitrov, Kent State University, Kagendo Mutua, Kent State University*

T.0800.CH **Minority Bias and Fairness Issues Related to Admissions Tests**

Division D: Measurement and Research Methodology — **Symposium**
Thursday, 8:00 am to 9:20 am — Columbian House
CHAIR *Ayres D'Costa, Ohio State University*
DISCUSSANT *Kevin C. Larkin, American Dental Association*
PRESENTATIONS

Minority Bias and Fairness Issues Related to Admission Tests. *Ayres G. D'Costa, The Ohio State University; Ramazan Basturk, The Ohio State University; Jing Chen, The Ohio State University; Cynthia Partridge, The Ohio State University*

T.0800.LH **Achieving Achievement, Quality, or Numbers?**

Division A: Administration — **Paper Presentation**
Thursday, 8:00 am to 9:20 am — Lake House
CHAIR *Bobby Malone, Ball State University*
DISCUSSANT *Bobby Malone, Ball State University*
PRESENTATIONS

A Review of Quality Assurance Procedures for Public Schools. *John D Coutts, Indiana Purdue University Fort Wayne*

Learning and Assessment: Using Multimedia Portfolios in Education. *Charles D. Manges, Western Illinois University*

Mandated Proficiency Testing in Ohio: Some Emerging Inequities. *Rich Hofmann, Miami University*

The Effect of Achievement Motivation on Academic Achievement. *Jenny A Kilgore, Miami University*

- - - - - -

Get involved in the division(s) of your choice.

Attend division meetings and become an active part of

MWERA!

T.0800.MA School Safety, School Violence, and the Law

Division A: Administration — **Paper Presentation**
Thursday, 8:00 am to 9:20 am — Mansion House

CHAIR *Theodore J. Kowalski, Ball State University*
DISCUSSANT *Theodore J. Kowalski, Ball State University*
PRESENTATIONS

In "Search" of Safety: Legal Implications of the Fourth Amendment. *Brad Colwell, Southern Illinois University; William L. Sharp, Southern Illinois University*

Multidimensional School Violence Prevention for Multidimensional School Violence. *Patrick D. Pauken, Bowling Green State University; Shalu Bhojwani, Bowling Green State University*

Recent and Emerging ADA Litigation: A Practice Guide. *Brian R Hinrichs, Illinois State University; Sharon Naylor, Illinois State University*

School Safety: A Study of Superintendents' Perceptions. *James K. Walter, Texas A&M University--Corpus Christi; William L. Sharp, Southern Illinois University at Carbondale; Michael L. Supley, Texas A&M University--Kingsville*

T.0800.SH Evaluation Methodology and Issues: Session I

Division H: School Evaluation and Program Development — **Paper Presentation**
Thursday, 8:00 am to 9:20 am — Shakespeare Hotel

CHAIR *Sharon Valente, Ashland University*
DISCUSSANT *Carole Newman, The University of Akron*
PRESENTATIONS

Clinical Context of Evaluation: Impact of Situation on Evaluation. *Louis S. Trenta, University of Akron*

Issue Scanning: Finding the Future ... Maybe. *Michael B Plog, Illinois State Board of Education; Jim Sweeney, Illinois State Board of Education; Barry Weiss, Illinois State Board of Education*

Salary Compression and Noncompetitive Salaries: An Institution's Faculty Salary Assessment and Adjustment Program. *John W. Fraas, Ashland University*

T.0800.ST Acknowledging Our At-Risk and Ethnically Diverse Students

Division G: Social Context of Education — **Paper Presentation**
Thursday, 8:00 am to 9:20 am — Steamboat Hotel

CHAIR *Peggy Munke, Southeastern Louisiana State University*
DISCUSSANT *Mary Ann Wham, University of Wisconsin-Whitewater*
PRESENTATIONS

In Their Own Words: Schooling as Perceived and Experienced by At-Risk Students. *Chad D. Raisch, University of Dayton; Dr. James Schoenlein, Principal, Kettering Fairmont High School (OH)*

Notions of Beauty, Stress, and Violence Through the Eyes of Children. *Dana Rapp, Ashland University*

Our Nation's Schools: Why Are They in Crisis and What Can Be Done About It? Understanding/Reinterpreting Assessment Summaries. *Joycelyn G Parish, Wichita Public Schools; Thomas S. Parish, Kansas State University; Steve Batt, Wichita Public Schools*

Pluralism in Rural America: You Say School, I Say Escuela. *Michael Brunn, Western Illinois University; Gloria A. Delany-Barmann, Western Illinois University; Lourdes Kuthy-Saenger, Western Illinois University*

T.0800.WS Mentoring Teachers: A Model

Division K: Teaching and Teacher Education — **Symposium**
Thursday, 8:00 am to 9:20 am — Western Stage House

CHAIR *Jim Salzman, Ursuline College*
DISCUSSANT *Sue Amidon, Wright State University*
PRESENTATIONS

Mentoring Induction-Year Teachers: A Collaborative Model. *James A. Salzman, Ursuline College; Frank Aquila, Cleveland State University; Carmen Giebelhaus; Bonnie Williams, University of Dayton; Susan Molinari, Patricia Murphy, Paula Ross, Cheri Rourke, North Royalton City Schools*

T.0930.SE Keynote Address

MWERA — Invited Address
Thursday, 9:30 am to 10:20 am — Sauganash Ballroom East

CHAIR *E. Jane Williams, The Ohio State University*

PRESENTATION

"Be an ARC – An American Reconstructioneer of Culture" John Sikula, Ashland University

Dr. John Sikula is in his 23rd year as Education Dean having served at Indiana University Northwest, California State University, Long Beach, National University in San Diego, and currently at Ashland University in Ohio. He is past national president of the Association of Teacher Educators and was senior editor of Macmillan's Handbook of Research on Teacher Education, Second Edition in 1996.

Be an ARC – An American Reconstructioneer of Culture is a presentation resulting from Dean Sikula's work during the mid-1990s compiling and editing 48 chapters for the Second Edition of Macmillan's Handbook of Research on Teacher Education. Dr. Sikula draws from the work of some 200 leading educators across the country and beyond as they examine what needs to be done to improve schooling in America.

Dean Sikula makes and defends two declarations:

1. Improvement in schooling and teacher education in the United States will be successful to the extent that educators establish via research and make known to the public and to budget controlling authorities the clear relationships which exist between investment in education and productive citizenship.
2. Until educators become more proactive, demanding, political, and willing to serve as American Reconstructioneers of Culture (ARCs), our educational institutions will continue to drift with the tide of mediocrity as resources flow to other more visible and vocal areas.

T.1030.AH Classroom Discourse as an Analytic Resource in Educational Research

Division B: Curriculum Studies — **Alternative Session**
Thursday, 10:30 am to 11:50 am — American House

CHAIR *Nancy G. Saunders, Indiana Wesleyan University*
DISCUSSANT *Nancy G. Saunders, Indiana Wesleyan University*

PRESENTATIONS

Classroom Discourse as an Analytic Resource in Educational Research: What Can We Learn from Looking into Transcripts. *Yo-An Lee, The Ohio State University; Wendy Sherman McCann, The Ohio State University*

T.1030.BH New Member Welcome

MWERA — Alternative Session
Thursday, 10:30 am to 11:50 am — The Bulls Head

CHAIR *Francine E. Michel, The Ohio State University*

NOTES

All new and existing MWERA members are invited to this new member welcome session. Come and meet each other, and get to know what this great organization is all about! Kim Metcalf, Center for Evaluation, Indiana University; Thomas S. Parish, Kansas State University; Jeffrey B. Hecht, Illinois State University; E. Jane Williams, The Ohio State University; James Powell, Ball State University; Mary Ann Wham, University of Wisconsin – Whitewater; Carmen Giebelhaus, University of Dayton; Jean W. Pierce, Northern Illinois University; Robert Barcikowski, Ohio University; Deborah Bainer Jenkins, The Ohio State University – Mansfield; Richard M. Smith, Rehabilitation Foundation, Inc.; Gene Kramer, American Dental Association; Mary Bendixen-Noe, The Ohio State University - Newark

T.1030.CH Division E Business Meeting

Division E: Counseling and Human Development — **Meeting**
Thursday, 10:30 am to 11:50 am — Columbian House

SR. DIV CHAIR *Linda Bakken, Wichita State University*

T.1030.LH The Superintendency: Ever Present Issues

Division A: Administration — **Paper Presentation**
Thursday, 10:30 am to 11:50 am — Lake House
CHAIR *Mark Stevens, Wright State University*
DISCUSSANT *A. William Place, The University of Dayton*
PRESENTATIONS

Beginning Superintendents' Perceptions of Their Graduate Preparation as a Basis for Their First Year as a Superintendent. *Melissa A. Burroughs, Education Service Center, Region 2*

Retirement and the Superintendency: A Two State Study. *James K Walter, Texas A&M University--Corpus Christi; William L. Sharp, Southern Illinois University at Carbondale; Michael L. Supley, Texas A&M University--Kingsville*

Superintendents and Residency Requirements-A Closer Look. *Dr. George J. Bowdouris, Ashland University; Dr. Norman L. Sommers, Ashland University*

T.1030.MA Division H Business Meeting

Division H: School Evaluation and Program Development — Meeting
Thursday, 10:30 am to 11:50 am — Mansion House
SR. DIV. CHAIR *John Fraas, Ashland University*
JR. DIV. CHAIR *Isadore Newman, The University of Akron*

T.1030.SH Follow-up Discussion from the Keynote Address

MWERA — Alternative Session
Thursday, 10:30 am to 11:50 am — Shakespeare Hotel
PRESENTATIONS

Follow-up discussion to the Keynote Address: "Be an ARC - An American Reconstructioneer of Culture." *John Sikula, Ashland University*

T.1030.ST Writing Proposals for Funded Research Projects

MWERA — Workshop
Thursday, 10:30 am to 1:00 pm — Steamboat Hotel
CHAIR *Gay Su Pinnell, The Ohio State University*
NOTE *Maximum Enrollment: **30**; Fee: **N/C***

This workshop focuses on the elements of a proposal for funding research grants. The presenter will describe types of proposals, elements of successful proposals, as well as procedures for developing them.

T.1030.WS The Challenges of Preparing Pre-service Teachers

Division K: Teaching and Teacher Education — **Paper Presentation**
Thursday, 10:30 am to 11:50 am — Western Stage House
CHAIR *Mary Campbell, Saint Xavier University*
DISCUSSANT *Maria E. Galvez-Martin, The Ohio State University - Lima*
PRESENTATIONS

Assessing the Gray Area: A Professional Qualities Inventory. *Jennifer J Fager, Western Michigan University; Katharine Cummings, Western Michigan University*

Stress During Student Teaching: Prevention and Coping Strategies. *Elizabeth A Wilkins-Canter, Towson University; Audrey Edwards, Eastern Illinois University; Hema Ramanathan, Butler University; Kenny McDougle, Pittsburgh State University; Alice Young, Morehead State University*

The Calibration of a Student Teacher Portfolio Rating Instrument. *Lori F. Rothenberg, Wayne State University; Gail Fahoome, Wayne State University; Mary Stein, Oakland University; Weimo Zhu, Wayne State University*

What Should a Competent, Committed, and Caring Teacher Candidate Be Able to Do: Establishing a Foundation. *Charles K. Runyan, Pittsburg State University; Rozanne Sparks, Pittsburg State University*

T.1200.WP MWERA Association Council Meeting

MWERA — Meeting
Thursday, 12:00 pm to 1:30 pm — Wolf Point Pre-Function Room
PRESIDENT *Thomas S. Parish, Kansas State University*
NOTES *All current MWERA Association Council Members and Officers should attend. Luncheon will be served.*

T.1340.AH Music and the Brain: Research Linking Music Study to Academic Achievement

Division C: Learning and Instruction — **Alternative Session**
Thursday, 1:40 pm to 3:00 pm — American House

CHAIR *William I Bauer, Ball State University/School of Music/College of Fine Arts*
DISCUSSANT *William I Bauer, Ball State University*
PRESENTATIONS

Music and the Brain: Research Linking Music Study to Academic Achievement. *William I. Bauer, Ball State University; Peter A. McAllister, Ball State University*

T.1340.BH Issues on Faculty Development

Division K: Teaching and Teacher Education — Paper Presentation
Thursday, 1:40 pm to 3:00 pm — The Bulls Head

CHAIR *Richele O'Connor, Wright State University*
DISCUSSANT *Marcen E Sheridan, Indiana University - South Bend*
PRESENTATIONS

Observation + Reflections = Changes In My Instructional Practices. *Ana G Serafin, Northeastern Illinois University; Dr. Ernestine Riggs, Loyola University*

Teaching Educational Psychology: Comparisons Across Multiple Dimensions. *Elizabeth Jean Johnson, Governors State University; Dr. Larry Cross, Governors State University*

The Design and Implementation of an On-line Professional Development Forum. *James G. MaKinster, Indiana University; Thomas M. Keating, Boston College*

What Makes a Course Liked or Disliked by College Students? *Aimin Wang, Miami University*

T.1340.CH Division F Business Meeting with INVITED SPEAKER

Division F: History and Historiography — **Meeting**
Thursday, 1:40 pm to 3:00 pm — Columbian House

SR. DIV.CHAIR *Louise E. Fleming, Ashland University*
JR. DIV. CHAIR *Elizabeth Johnson, Eastern Michigan University*
PRESENTATIONS

"The Literal or the Figurative … Which Develops Greater Truth?" *Elizabeth Johnson & Dawn Clark, Eastern Michigan University*

Division F Business Meeting to follow.

T.1340.LH Risks for Females in Adolescence and Midlife

Division E: Counseling and Human Development — **Paper Presentation**
Thursday, 1:40 pm to 3:00 pm — Lake House

CHAIR *Linda Bakken, Wichita State University*
DISCUSSANT *Linda Bakken, Wichita State University*
PRESENTATIONS

Cultural Attitudes and Counseling Implications for Menopausal Women: Using Multi-cultural Perspectives to Influence Individual and Systemic Changes. *Nicole M Stacey, Indiana University; Greg Chaffin, Indiana University; Polly Tait, Indiana University*

Eating Disorder Symptomatology in Single Sex, Private, and Public High Schools. *Karen L Messmer, Ball State University, Gregory J. Marchant, Ball State University*

T.1340.MA Division B Business Meeting

Division B: Curriculum Studies — **Meeting**
Thursday, 1:40 pm to 3:00 pm — Mansion House

CHAIR *Nancy G. Saunders, Indiana Wesleyan University*
DISCUSSANT *Brad Oliver, Ball State University*

T.1340.SH Building Capacity for Literacy Teaching and Learning in Urban Schools

MWERA — Invited Symposium
Thursday, 1:40 pm to 3:00 pm — Shakespeare Hotel

CHAIR *Sharon Greenberg, Center for School Improvement, University of Chicago*

PRESENTATIONS

- A Social History of the Center for School Improvement, University of Chicago. *Sharon Greenberg & Tony Bryk, Center for School Improvement, University of Chicago*
- Literacy Coordinator as Instructional Leader: The Development of Technical Knowledge and Skill. *Gay Su Pinnell & Carol Lyons, The Ohio State University*
- Literacy Coordinator: Changing the Political Dynamics. *Sharon Greenberg, Center for School Improvement, University of Chicago*
- A School-based Literacy Assessment System: The Technical Core of Progress for All. *David Kerbow, Center for School Improvement, University of Chicago*
- Evaluation of Achievement Gains at the Primary Level. *David Kerbow, Julia Gwynne & Brian Jacob, Center for School Improvement, University of Chicago*

T.1340.ST Effectiveness: Policy, Communication, and Adult Learners

Division J: Postsecondary Education — **Symposium**
Thursday, 1:40 pm to 3:00 pm — Steamboat Hotel

CHAIR *Greg Montalvo, Western Illinois University*
DISCUSSANT *Greg Montalvo, Western Illinois University*

PRESENTATIONS

- Effectiveness: Policy, Communication, and Adult Learners. *Ned D. Young, University of Dayton; Lori Zakel, Sinclair Community College; Emmanuel Anunike, Ohio Department of Development*

T.1340.WS The Design and Analysis of the Structure of Instruments

Division D: Measurement and Research Methodology — **Paper Presentation**
Thursday, 1:40 pm to 3:00 pm — Western Stage House

CHAIR *Jim McCluskey, Central Michigan University*
DISCUSSANT *Sue Brookhart, Duquesne University*

PRESENTATIONS

- A Comparison of Three Scaling Techniques to Examine the Construct Structure of a Spatial Visualization Test. *Kanda Phunlapthawee, The Ohio State University*
- An Analysis of MEAP Scores Using a Hierarchical Model. *Shawn M Quilter, Eastern Michigan University, Cher Chester, State University of West Georgia*
- An Analysis of the Design Components Influencing the Difficulty of Abstract-reasoning Items. *Gene A. Kramer, American Dental Association*
- On the Internal Consistency of a Scale of Teacher Satisfaction. *Bruce G. Rogers, University of Northern Iowa*

T.1510.SE Roundtable Discussion/Poster Session #1

MWERA — Roundtable Discussion/Poster
Thursday, 3:10 pm to 4:00 pm — Sauganash Grand Ballroom East

TABLE 1 Am I the Teacher I Always Dreamed of Being?: An Action Research Study. *Christina Campbell, Ben Davis J. H. S.*

TABLE 2 Areas of Advise Seeking Among Beginning Teachers in a Mentoring Program. *Tom Ganser, University of Wisconsin-Whitewater*

TABLE 3 Classroom Management Intervention: A Qualitative Study. *John T. Laut, Coastal Carolina University; Tahma Rowe Jeffrey, Coastal Carolina University; Dana Gregory, Coastal Carolina University; Ben Harris, Coastal Carolina University; Britt Gerasolo, Coastal Carolina University; Jennifer Snider, Coastal Carolina University*

TABLE 4 Furthering the Agenda of the National Network for Educational Renewal and Strengthening Relationships with Partner Schools: A Case Study of A Local Associates Program. *C. Richele O'Connor, Wright State University*

TABLE 5 Reflective Thinking on the Student Handbook: A Process for Assessing School Culture. *Margaret A. Wuelfing, University of Dayton*

TABLE 6 Practicing What I Preach? Learner-centered Educational Psychology. *Pamela R. Clinkenbeard, University of Wisconsin - Whitewater*

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TABLE 7 Pre-service Teacher Reflections on Learning in an Interactive Elementary Teacher Education Program. *Sunya T. Collier, Georgia State University*

TABLE 8 How Should Technology Be Integrated in the Pre-Service Science Teacher Curriculum?. *Bashiel H Smith, Capital University, Mrs. Pauline Shaw, Worthington Kilbourne High School*

TABLE 9 Review of Differential Item Functioning Methods and Their Possible Application for Studying Cross-cultural Response Style Differences in Likert-type Items. *Yongwei Yang, University of Nebraska at Lincoln*

TABLE 10 Assessing the Impact of Reading Recovery: An Evaluation Project in Two School Districts. *Jay R. Price, University of Wisconsin - Stevens Point; Leslie McClain-Ruelle, University of Wisconsin - Stevens Point; Sharon Toellner, Wisconsin Rapids Public Schools; Rose Ylimaki, Stevens Point Area School District*

TABLE 11 Collaboration Between the University, District, and Classroom: How This Classroom Teacher and District/University Trainer Use Assessment Data. *Donna Johnson, Valdosta State University/ G.O. Bailey Elementary School; Karen Sumner, G.O. Bailey Elementary School/ Valdosta State University*

TABLE 12 * Hot Topics Discussion: Teaching Educational Psychology in the 21st Century: Past, Present, and Future "isms". *Orpha K. Duell, Wichita State University; Sarah Peterson, Duquesne University*

TABLE 13 * Hot Topics Discussion: A Look at the Self-directed Learning Research and Its Implications for Students and Teachers. *Jack Snowman, Southern Illinois University; Rick McCown, Duquesne University*

TABLE 14 * Hot Topics Discussion: Do the Wonders of Technology Impact Learning? *Jay C. Thompson, Jr., Ball State University; Frederick W. Nay, Ball State University; Bobby G. Malone, Ball State University*

TABLE 15 * Hot Topics Discussion: Ways to Create "Honored" Students. *Joycelyn G. Parish, Wichita (KS) Public Schools; Thomas S. Parish, Kansas State University*

TABLE 16 * Hot Topics Discussion: Intimacy and Relationships in Education. *Marlene Schommer, Wichita State University; Linda Bakken, Wichita State University*

TABLE 17 * Hot Topics Discussion: Beyond the Lecture: Practical and Creative Teaching Alternatives. *Jacqueline Rickman, Western Illinois University; Young Suk Hwang, Western Illinois University*

TABLE 18 * Hot Topics Discussion: Sexism on the University Campus. *Adria Karle-Weiss, Cumberland University; Chhandra Islam, Cumberland University*

TABLE 19 * Hot Topics Discussion: Learned Helplessness: A Challenge to Effective Teaching? *Anisa Al-Khatab, Eastern Kentucky University; Samuel Hinton, Eastern Kentucky University*

TABLE 20 * Hot Topics Discussion: Creating Curriculum for Performance-based Accreditation. *James Powell, Ball State University; David Bardas, Carmel High School*

TABLE 21 * Hot Topics Discussion: Adult Literacy: Will It Continue to be a Problem in the 21st Century? *M. Cecil Smith, Northern Illinois University; Janet Sheehan-Holt, Northern Illinois University*

TABLE 22 * Hot Topics Discussion: Prevention Initiatives for School Violence: Concepts, Strategies for Documentation and Use of Data. *William Loadman, The Ohio State University; Anne Marie Thomas, The Ohio State University*

TABLE 23 * Hot Topics Discussion: Qualitative vs. Quantitative Methods. *Dennis Leitner, Southern Illinois University; Isadore Newman, The University of Akron*

T.1610.AH Inclusion in Special Education

Division K: Teaching and Teacher Education — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — American House

CHAIR *William I Bauer, Ball State University/School of Music/College of Fine Arts*
DISCUSSANT *Carole L Bentley, Chicago State University*
PRESENTATIONS

A Tale of Two Methods: Melding Project Read and Guided Reading to Improve At-Risk Students' Literacy Skills. *James A. Salzman, Ursuline College; Carolyn Bruce, Rowland Elementary School; Donna Snodgrass, South Euclid-Lyndhurst City Schools*

Pre-service Teachers' Attitudes Toward Inclusive Education. *Keith Cochran, Missouri Southern State College*

The Relationship Between General Classroom Teachers' Attitudes Toward Inclusion and the Self-Concepts of Students With Disabilities Included in General Classrooms. *Stanley E. Wigle, Indiana University Northwest; Donal DeMoulin, University of Tennessee-Martin; Keith Cochran, Missouri Southern State College; Connie Bowman, University of Dayton*

The Special Education Competencies of Special Education Directors. *Daryl J Wilcox, Wayne State College; Stanley E. Wigle, Indiana University Northwest*

T.1610.BH Learning Processes and Strategies

Division C: Learning and Instruction — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — The Bulls Head

CHAIR *Ervin F Sparapani, Saginaw Valley State University*
DISCUSSANT *James W Reineke, Winona State University*

PRESENTATIONS

Do Thematic Titles and Utilization of an Imagery Strategy Affect Sixth Graders' Memory for Prose? *Beverly J. Dretzke, University of Wisconsin-Eau Claire; Rebecca L. Wingen, Mound School District, Minnesota*

The Effects of Online Technology on Student Achievement and Motivation. *Sarah E Peterson, Duquesne University; Susan Brookhart, Duquesne University; Thomas Isenhour, Duquesne University*

The Unique Needs and Characteristics of Monozygotic Twins as Learners. *John R. Mascazine, Ohio State University*

Understanding Student Usage of On-Line Materials in Traditional and Distance Education Courses. *Jeffrey B. Hecht, Illinois State University*

T.1610.CH Mid-Western Educational Researcher Editorial Board Meeting

MWERA — Meeting
Thursday, 4:10 pm to 5:30 pm — Columbian House

NOTES *All Mid-Western Educational Researcher Editorial Board Members should attend.*

Mid-Western Educational Researcher Editorial Board Meeting. *Deborah L. Bainer Jenkins, The Ohio State University - Mansfield; Richard M. Smith, Rehabilitation Foundation, Inc.; Gene A. Kramer, American Dental Association; Kim Metcalf, Center for Evaluation, Indiana University; Josue Cruz, University of South Florida; Ken Kiewra, University of Nebraska-Lincoln; Isadore Newman, The University of Akron;* Mary Bendixen-Noe, *The Ohio State University -- Newark*

T.1610.LH Teaching Strategies in Higher Education

Division B: Curriculum Studies — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — Lake House

CHAIR *Douglas Feldmann, Southern Illinois University*
DISCUSSANT *Douglas Feldmann, Southern Illinois University*

PRESENTATIONS

Cooperative Learning Strategies in Graduate Education. *Dr. Nancy G. Saunders, Indiana Wesleyan University; Dr. Ted Batson, Indiana Wesleyan University*

In-service: The Key to Reform? *Susan E Enyart, Otterbein College*

Teacher Education: Can Anything Prepare the Detention Teacher? *Kari J. Lee, Muncie Community School Corporation; James H. Powell, Ball State University*

Utilizing the World Wide Web in the Distance Education Environment: A Follow-up Analysis of Student Perceptions. *Jay C Thompson, Jr., Ball State University; Frederick W. Nay, Assoc. Dir. Computing Services, Ball State University*

T.1610.MA Issues Related of Multiple Regression and Multivariate Analyses

Division D: Measurement and Research Methodology — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — Mansion House

CHAIR *Craig A. Mertler, Bowling Green State University*
DISCUSSANT *Robert Barcikowski, Ohio University*

PRESENTATIONS

A Comparison of Radial Basis Function Artificial Neural Networks with Multiple Regression. *John C. Duncan, Kent State University*

Canonical and Discriminant Analyses: Selected Issues Including Specification Errors and Jacknife and Bootstrap Procedures. *Kenneth H. Strand, Illinois State University; Kim Astroth, Illinois State University*

Permutation Tests in Principal Component Analysis. *John T. Pohlmann, Southern Illinois University; Kyle Perkins, Southern Illinois University*

The Stabilities of Wilks' Lambda and Standardized and Structure Coefficients in Each of Canonical and Discriminant Analyses. *Kenneth H. Strand, Illinois State University*

T.1610.SH Impact of Personal Dimensions and the Schooling Process

Division A: Administration — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — Shakespeare Hotel

CHAIR *James K. Walter, Texas A & M University -- Corpus Christi*
DISCUSSANT *James K. Walter, Texas A & M University -- Corpus Christi*
PRESENTATIONS

Difference in Sense of Self as it is Related to Participation and Nonparticipation in Extracurricular Activities. *Rhonda Bohannon, Miami University*

Perceptions of Teacher Burnout. *Barbara L. Brock, Creighton University*

The Relationship Between Principals` Self-Perceptions of Their Influence as Instructional Leaders and Student Achievement. *Martin H. Jason, Roosevelt University*

T.1610.ST Where Does Authority Reside?

Division A: Administration — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — Steamboat Hotel

CHAIR *Bobby Malone, Ball State University*
DISCUSSANT *Bobby Malone, Ball State University*
PRESENTATIONS

Decentralization and Site-Based Budgeting: "How To". *Timothy J. Ilg, University of Dayton; C. Daniel Raisch, University of Dayton*

Effect of Ratability on Pupil Horizontal Equity of the Rhode Island School Funding Formula. *Charles E. Kline, Purdue University; Thomas G. Reale, Purdue University*

The Role of the Superintendent and School Board in Collective Bargaining: 1989 - 1999. *William L. Sharp, Southern Illinois University*

T.1610.WS Pre-service Teacher Knowledge

Division K: Teaching and Teacher Education — **Paper Presentation**
Thursday, 4:10 pm to 5:30 pm — Western Stage House

CHAIR *Elizabeth J Johnson, Governors State University*
DISCUSSANT *Hema Ramanathan, Butler University*
PRESENTATIONS

Helping Pre-service Teachers Increase Their Teaching Efficacy. *Timothy D. Green, Indiana University; Casey Griles, Indiana University; Herb Fiester, Indiana University; Todd Zazelenchuk, Indiana University; Greg Berman, Indiana University; Abbie Brown, Indiana University*

Interdependent Teaching Efficacy: An Important Concept for Understanding and Promoting Educational Reform. *Karl F. Wheatley, Cleveland State University*

Pre-Service Teachers` Explanations of Student Achievement and the Development of Teacher Efficacy: A Pilot Study. *Jay R. Price, University of Wisconsin -- Stevens Point; Perry A. Cook, University of Wisconsin -- Stevens Point*

The Nature of Common Sense in Educational Psychology: A Qualitative Examination into the Theory and Practice of Pre-service Teachers. *Michael L Slavkin, Indiana University – Bloomington*

T.1610.WP Cracker Barrel Social

MWERA — Social
Thursday, 6:00 pm to 7:00 pm — Wolf Point Pre-Function Room

HOST *Thomas S. Parish, Kansas State University*
NOTES *A lite fare get-together for all MWERA-99 attendees.* ***Everyone is welcome!***

See you at the Cracker Barrel!

Chronological Listing of Sessions
Friday, October 15, 1999

F.0800.AH Preparing Pre-service Teachers Using a Multicultured, Learner-Centered Focus

Division B: Curriculum Studies — **Symposium**
Friday, 8:00 am to 9:20 am — American House
CHAIR *Nancy G. Saunders, Indiana Wesleyan University*
DISCUSSANT *Nancy G. Saunders, Indiana Wesleyan University*
PRESENTATIONS

Preparing Pre-service Teachers using a Multicultured, Learner- Centered Focus. *Clara A. New, University of Wisconsin-Parkside; Simon A. Akindes, University of Wisconsin-Parkside; Ruth Becker, University of Wisconsin-Parkside; Dwayne Olsen, University of Wisconsin-Parkside; Rose Mary Scott, University of Wisconsin-Parkside*

F.0800.BH Evaluation of Voucher Programs and Alternative School Programs

Division H: School Evaluation and Program Development — **Paper Presentation**
Friday, 8:00 am to 9:20 am — The Bulls Head
CHAIR *Philip Griswold, Ashland University*
DISCUSSANT *Isadore Newman, The University of Akron*
PRESENTATIONS

Alternative Strategies for At-Risk Youth: A Collaborative Approach Between Schools, Courts, and Parents. *Eugene T. Sanders, Bowling Green State University; Brenda Kallio, Bowling Green State University; Daniella Padua, Bowling Green State University; Bryan Cavins, Bowling Green State University*

Comparing Measures of Effectiveness Between Ohio Accelerated Schools and Non-Accelerated Schools. *Ned D. Young, University of Dayton*

The Christopher Program: Collaborative and Student Centered Learning Yield High Performance. *Judit Antal, The Ohio State University, Anne Marie Thomas, The Ohio State University*

The Cleveland Scholarship Program: Multi-Year Effects on Students, Parents, Teachers, and Schools. *Kim K. Metcalf, Center for Evaluation, Indiana University; Patricia Muller, Center for Evaluation, Indiana University*

F.0800.CH Blurring the Boundaries: New Ideas in Teaching and Learning

Division C: Learning and Instruction — **Symposium**
Friday, 8:00 am to 9:20 am — Columbian House
CHAIR *Cynthia Campbell, Northern Illinois University*
DISCUSSANT *Steve Wallace, Northern Illinois University*
PRESENTATIONS

Blurring the Boundaries: New Ideas in Teaching and Learning. *Cynthia Campbell, Northern Illinois University; James W. Reineke, Winona State University; Ronald Morgan, Loyola University – Chicago*

F.0800.LH School Administration in the Next Millennium

Division A: Administration — **Paper Presentation**
Friday, 8:00 am to 9:20 am — Lake House
CHAIR *Michael L. Supley, Texas A & M University - Kingsville*
DISCUSSANT *Michael L. Supley, Texas A & M University - Kingsville*
PRESENTATIONS

Action Research: A Valuable Tool for K-12 Principals. *Barbara M. DeLuca, University of Dayton*

Analysis of the Technology Knowledge and Needs of School Administrators. *Cynthia H. Geer, Xavier University*

Reform Efforts in Graduate Programs: An Interdisciplinary Doctoral Program in Leadership Studies at Bowling Green State University. *Eugene T.W. Sanders, Bowling Green State University; Judy Jackson May, Bowling Green State University; Robert Ludwig, Bowling Green State University; David Nicholls, Bowling Green State University; Marcia Salazar-Valentine, Bowling Green State University; Patrick Pauken, Bowling Green State University*

Training Administrators for the Net Generation. *Sajit Zachariah, University of Akron; James Hardy, University of Akron; Sharon Kruse, University of Akron; Duane Covrig, University of Akron*

F.0800.MA Mentoring and Professional Development in Educational Reform

Division K: Teaching and Teacher Education — **Paper Presentation**
Friday, 8:00 am to 9:20 am — Mansion House

CHAIR *Judith Jackson May, Bowling Green State University*
DISCUSSANT *Sue Amidon, Wright State University*
PRESENTATIONS

I'll Be There For You: Mentoring and Novice Teachers. *Carmen R. Giebelhaus, University of Dayton; Mary Bendixen-Noe, The Ohio State University - Newark; John Nichelson, Ohio Department of Education*

Is it Worth the Effort? The Impact of Mentor Teacher Training. *Carmen R. Giebelhaus, University of Dayton; Connie Bowman, University of Dayton*

John Dewey Looks at a PDS. *Donna L. Adair, Georgia State University; Rick A. Breault, University of Indianapolis*

Portfolios in Teacher Education. *Louise E. Fleming, Ashland University*

F.0800.SH Critical Issues in the Design and Supervision of Field Experiences

Division K: Teaching and Teacher Education — **Symposium**
Friday, 8:00 am to 9:20 am — Shakespeare Hotel

CHAIR *Janet T Bercik, Northeastern Illinois University*
PRESENTATIONS

Critical Issues in the Design and Supervision of Field Experiences: A Cross-section of Experiences in One Teacher Education Program. *Anne D. Stinson, University of Wisconsin-Whitewater; Margy McClain, University of Wisconsin-Whitewater; Melissa R. Freiberg, University of Wisconsin-Whitewater; John M. Zbikowski, University of Wisconsin-Whitewater; Virginia Epps, University of Wisconsin-Whitewater; Tom Ganser, University of Wisconsin-Whitewater*

F.0800.ST Leadership Preparation: Two Perspectives

Division A: Administration — **Paper Presentation**
Friday, 8:00 am to 9:20 am — Steamboat Hotel

CHAIR *William L. Sharp, Southern Illinois University at Carbondale*
DISCUSSANT *William L. Sharp, Southern Illinois University at Carbondale*
PRESENTATIONS

Educational Administration Graduate Students: What Motivates Them and Their Leadership Intentions. *Marian Glancy, University of Dayton*

How to be an Effective School Administrator in an Era of Educational Reform. *Theresa A. Quigney, Cleveland State University*

Leadership Preparation: An Examination of Biography, Communication and Technology. *Robert S. Estabrook, Central Michigan University; Rena E. Richtig, Central Michigan University; David E. Whale, Central Michigan University*

F.0800.WS Setting and Evaluating Various Types of Standards

Division D: Measurement and Research Methodology — **Paper Presentation**
Friday, 8:00 am to 9:20 am — Western Stage House

CHAIR *Beverly M. Klecker, Eastern Kentucky University*
DISCUSSANT *Bruce Rogers, University of Northern Iowa*
PRESENTATIONS

Evaluating the Quality of the Rating in the 1998 Ohio's BEST Practices Nomination Using Rasch Measurement. *Kanda Phunlapthawee, The Ohio State University*

Evaluation of Standard Setting Judges' Item Estimates. *June E. Smith, University of Nebraska - Lincoln*

Teacher Perceptions of Standards and Assessments: Unintended Consequences: A Question of Validity. *Marta J. Coleman, University of Nebraska – Lincoln; Barbara S. Plake, University of Nebraska-Lincoln*

Using Optical Scanning Forms to Collect Judges' Ratings in Angoff Standard Setting Studies. *Patrick M Irwin, University of Nebraska Lincoln; James C. Impara, University of Nebraska Lincoln*

F.0930.SE MWERA Business Meeting

MWERA — Meeting
Friday, 9:30 am to 10:20 am — Sauganash Grand Ballroom East
CHAIR *Thomas S. Parish, Kansas State University*
PRESENTATIONS

MWERA General Business Meeting. *Thomas S. Parish, Kansas State University; Jeffrey B. Hecht, Illinois State University; Kim Metcalf, Center for Evaluation, Indiana University; Jean W. Pierce, Northern Illinois University; E. Jane Williams, The Ohio State University; James Powell, Ball State University; Carmen Giebelhaus, University of Dayton*

F.1030.AH New Ideas in Teaching and Learning

Division C: Learning and Instruction — **Paper Presentation**
Friday, 10:30 am to 11:50 am — American House
CHAIR *James W Reineke, Winona State University*
DISCUSSANT *Ellen Lavelle, University of South Dakota*
PRESENTATIONS

A Description of the Research Taking Place Within the Context of an Arts-based Public Curriculum. *Ronald R Morgan, Loyola University Chicago; Janet Bresden, Loyola University Chicago; Marlea Edinger, Loyola University Chicago; Kathy Stone, Loyola University Chicago*

An Exploration of Students' Continuing Motivation for Collaborative Tasks. *Sarah E Peterson, Duquesne University*

Community in Western and Non-Western Thought. *Suzgo Nyirenda, Loyola University Chicago*

Exploring the Father's Role in the Cognitive Performance of Toddlers in a Non-western Society. *Oluyomi A. Ogunnaike, University of Wisconsin - Stevens Point*

F.1030.BH Division K Business Meeting

Division K: Teaching and Teacher Education — **Meeting**
Friday, 10:30 am to 11:50 am — The Bulls Head
SR. DIV. CHAIR *Maria E. Galvez-Martin, The Ohio State University - Lima*
JR. DIV. CHAIR *James Salzman, Ursuline College*

F.1030.CH Division G Business Meeting

Division G: Social Context of Education — **Meeting**
Friday, 10:30 am to 11:50 am — Columbian House
SR. DIV. CHAIR *Mary Ann Wham, University of Wisconsin-Whitewater*
JR. DIV. CHAIR *Celina Echols, Southeastern Louisiana State*

F.1030.LH Influences of Nature and Nurture on Cognitive Development

Division E: Counseling and Human Development — **Paper Presentation**
Friday, 10:30 am to 11:50 am — Lake House
CHAIR *Linda Bakken, Wichita State University*
DISCUSSANT *Linda Bakken, Wichita State University*
PRESENTATIONS

Fostering Cognitive Development: Progressing from Piaget's Preoperational Stage to Concrete Operations. *Christine C. Skar, Wichita State University*

Identifying Developmental Delays in Homeless Children. *Carla Jo Smalley, Wichita State University*

Teaching Cognitive Skills to Preschool Children Using a Discipline-based Art Education Program. *Therese J. Wohler, Wichita (KS) Public Schools*

The Effect of Phonological Awareness Training on First Grade Reading. *Lynn Mason, Wichita State University*

F.1030.MA Division I Business Meeting

Division I: Education in the Professions — **Meeting**
Friday, 10:30 am to 11:50 am — Mansion House
SR. DIV. CHAIR *Richard M. Smith, Rehabilitation Foundation, Inc.*
JR. DIV. CHAIR *Joyce C. Miller, Mount Vernon Nazarene College*

F.1030.SH Teaching Statistics: A Debate over Goals and Strategies

Division D: Measurement and Research Methodology — **Alternative Session**
Friday, 10:30 am to 11:50 am — Shakespeare Hotel
CHAIR *Schuyler W. Huck, University of Tennessee - Knoxville*
PRESENTATIONS

Teaching Statistics: A Debate Over Goals and Strategies. *Schuyler W. Huck, University of Tennessee (Knoxville); Tom Knapp, The Ohio State University; Joel Levin, University of Wisconsin (Madison); Dennis Leitner, Southern Illinois University; Robert Barcikowski, Ohio University; Beverly Dretzke, University of Wisconsin (Eau Claire)*

F.1030.ST Life in Marianist-Affiliated Schools: A Reader's Theatre Presentation

Division H: School Evaluation and Program Development — **Alternative Session**
Friday, 10:30 am to 11:50 am — Steamboat Hotel
CHAIR *Carole Newman, The University of Akron*
DISCUSSANT *Sharon Valente, Ashland University*
PRESENTATIONS

A Reader's Theatre Presentation of Life in Marianist-Affiliated Schools: Results of EMMET Research on Catholic School Identity. *Jill L. Lindsey-North, University of Dayton; Carolyn S. Ridenour, University of Dayton*

F.1030.WS Division A Business Meeting

Division A: Administration — **Meeting**
Friday, 10:30 am to 11:50 am — Western Stage House
SR. DIV. CHAIR *James K. Walter, Texas A & M University - Corpus Christi*
JR. DIV. CHAIR *George J. Petersen, Southwest Missouri State University*

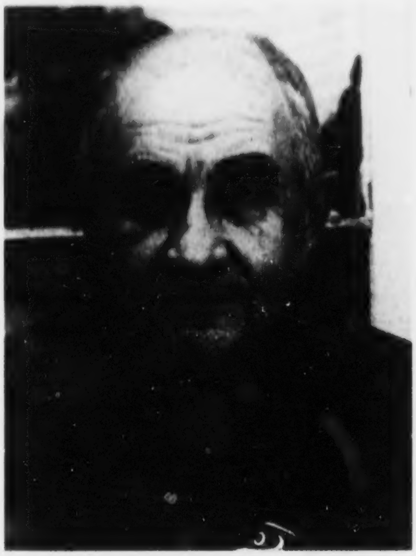
F.1200.SW Luncheon Address

MWERA — Invited Address
Friday, 12:00 pm to 1:30 pm — Sauganash Grand Ballroom West
CHAIR *Thomas S. Parish, Kansas State University*
NOTES *Luncheon registration and ticket required for entrance.*
PRESENTATIONS

Luncheon Address: "What Makes Teachers Good?" *Donald R. Cruickshank, Professor Emeritus, The Ohio State University*

A long-time member of MWERA, Dr. Donald R. Cruickshank retired from The Ohio State University in 1992. He has remained active pursuing his scholarly and research interests in research on teaching, particularly teacher clarity; research on teacher education; reflective teaching; the study of teacher problems and their recreation using simulations; and most recently, developing a framework for considering the question, What makes teachers good?

The question, Who is a good teacher?, has perplexed us for decades. It is unlikely that we will ever achieve consensus on an answer to it any more than we would to questions such as, What is good music? or What is a good job? It seems preferable to accept, or at least debate, that there are several kinds of good teachers. Consequently, six conceptions of `What makes teachers good?` are presented and developed.



F.1340.AH Examining School Cultures

Division G: Social Context of Education — **Paper Presentation**
Friday, 1:40 pm to 3:00 pm — American House
CHAIR *Celina Echols, Southeastern Louisiana State University*
DISCUSSANT *Celina Echols, Southeastern Louisiana State University*
PRESENTATIONS
Common Concerns: Length of School Day for Kindergarten Age Children in Calcutta, India, and Fort Wayne, Indiana. *Nancy Vojtash Moore, Indiana University-Purdue University Fort Wayne; Joe D. Nichols, Indiana University-Purdue University Fort Wayne*
Educational Excellence: Teacher Perceptions of an Amorphous Goal. *Connie J.S. Monroe, University of Dayton*
The Use of Metaphors to Describe the Culture of a Suburban Middle School. *Maria M Ferreira, Wayne State University*
Using Action Research to Determine Efficacy in the Amelioration of Prejudicial Attitudes of Future Teachers. *Cathryn A. Chappell, University of Cincinnati*

F.1340.BH Issues and Trends in Mathematics Curriculum and Instruction

Division B: Curriculum Studies — **Paper Presentation**
Friday, 1:40 pm to 3:00 pm — The Bulls Head
CHAIR *James Powell, Ball State University*
DISCUSSANT *Brad Oliver, Ball State University*
PRESENTATIONS
Comparison of International Math Textbooks. *Saddiga J Alghalib, Southern Illinois University at Carbondale; Ourania Rotou, Southern Illinois University; Cassandra Meyers-Tate, Southern Illinois University*
Improving Math Achievement Scores on the Illinois Goals Assessment Program Using the Countdown Video Tape Series. *William Z Petropoulos, Loyola University Chicago; Ronald R. Morgan, Loyola University - Chicago*
Putting Math Reform in Context. *Nancy Vojtash Moore, Indiana University-Purdue University Fort Wayne*
Integrating Writing to Improve Math Achievement. *Jacki Thayer, West Carrollton High School; Carmen Giebelhaus, University of Dayton*

F.1340.CH Education in the Professions

Division I: Education in the Professions — **Paper Presentation**
Friday, 1:40 pm to 3:00 pm — Columbian House
CHAIR *Thomas R. O'Neill, American Society of Clinical Pathologists*
DISCUSSANT *Joyce C. Miller, Mount Vernon Nazarene College*
PRESENTATIONS
Responding to State Mandates: A Case Study of the Implementation of Local Professional Development Committees. *C. Richele O'Connor, Wright State University; Janet Herrelko, Wright State University*
The Mactools Training Program: Trainee Characteristics and Their Effects on Training Effectiveness and Transfer. *Eul-Kyoo Bae, The Ohio State University; Anne Marie Thomas, The Ohio State University*
The Relationship Between Critical Thinking Proficiency and Decision Making Skill in Prospective Respiratory Care Practitioners. *Thomas V. Hill, The University of Dayton; A. William Place, The University of Dayton*

F.1340.LH Follow-up Discussion from the Luncheon Address

MWERA — Alternative Session
Friday, 1:40 pm to 3:00 pm — Lake House
PRESENTATIONS
Follow-up Discussion from the Luncheon Address: "What Makes Teachers Good?" *Donald R. Cruickshank, Emeritus, The Ohio State University*

F.1340.MA Division C Business Meeting

Division C: Learning and Instruction — **Meeting**
Friday, 1:40 pm to 3:00 pm — Mansion House
SR. DIV. CHAIR *James W Reineke, Winona State University*
JR. DIV. CHAIR *Cynthia Campbell, Northern Illinois University*

F.1340.SH Division D Business Meeting with INVITED SPEAKER

Division D: Measurement and Research Methodology — **Meeting**
Friday, 1:40 pm to 3:00 pm — Shakespeare Hotel

SR. DIV. CHAIR *Gene A. Kramer, American Dental Association*
JR. DIV. CHAIR *Janet Sheehan-Holt, Northern Illinois University*
PRESENTATION

"Catastrophes" that Influenced the History of Testing in America. *Ayres D'Costa, The Ohio State University*
Division D Business Meeting to follow.

F.1340.ST Trends in Principal Preparation

Division A: Administration — **Paper Presentation**
Friday, 1:40 pm to 3:00 pm — Steamboat Hotel

CHAIR *Barbara Martin, Southwest Missouri State University*
DISCUSSANT *Barbara Martin, Southwest Missouri State University*
PRESENTATIONS

Becoming a Professional Development School: Planning, Institutional Outcomes, and Leadership. *Theodore J. Kowalski, Ball State University; Duncan "Pat" Pritchett, Indianapolis Public Schools*

Principal Development Academy: Mentoring Results. *Thomas J. Matczynski, University of Dayton; A. William Place, University of Dayton; James A. Williams, Dayton Public Schools*

Virtual School Planning: A Study of Partnerships. *Randall L. Turk, Wichita State University*

F.1340.WS Division K: Invited Panel

Division K: Teaching and Teacher Education — **Alternative Session**
Friday, 1:40 pm to 3:00 pm — Western Stage House

CHAIR *Carmen Giebelhaus, University of Dayton*
PRESENTATIONS

Setting State Teacher Preparation Standards. *Carmen Giebelhaus, University of Dayton; John Nichelson, Ohio Department of Education; Kathryn Lind, Wisconsin Department of Public Instruction*

A panel of mid-western state department of education officials will discuss the changes occurring in teacher preparation standards for licensure/certification. Topics will include INTASC, NCATE/State Partnership agreements, standards setting, and performance-based assessments for licensure and program approval, as well as the impact of national initiatives like the institutional report cards.

F.1510.LH Workshop in Historical Research

Division F: History and Historiography — **Workshop**
Friday, 3:10 pm to 5:30 pm — Lake House

CHAIR *Louise E. Fleming, Ashland University*
DISCUSSANT *Elizabeth Johnson, Eastern Michigan University*
NOTES *All divisions welcome.*
Maximum Enrollment ***30****:* *Fee:* ***N/C***
PRESENTATIONS

This is a workshop in historical research, what it is and how to conduct it. Participants are invited to bring several copies of a work-in-progress, and following the presentation of method, the participants and presenters will read and constructively critique one another's work. This session is especially encouraged for newer researchers or people who are trying to conduct historical research and get it published.

F.1510.SE Roundtables Discussion/Poster Session #2

MWERA — Roundtable Discussion/Poster
Friday, 3:10 pm to 4:00 pm — Sauganash Grand Ballroom East

TABLE 1 An Analysis of Reading Attitudes of Second and Fourth Grade Students Before and After a Peer Tutoring Reading Program. *Staci M. Montgomery, University of Dayton*

TABLE 2 Authentic Assessment & Proficiency Testing: Assessing Students' Mathematical Understanding. *Roland G. Pourdavood, Cleveland State University; Lynn M. Cowen, Assistant Principal, Lomond School; Lawrence V. Svec, Principal, Lomond School*

TABLE 3	Measurement and Influence of Pre-service Teachers' Knowledge Structure in an Educational Psychology Course. *Clare Coco, Loyola University Chicago*
TABLE 4	Picture This: Teacher Constructions of Pedagogical Identities. *Kim M. Pittman, Aurora University; Dr. Linda O'Neill, Aurora University*
TABLE 5	Pre-Service Teachers Perceptions of Teaching in Rural Areas. *Doug Feldmann, Southern Illinois University at Edwardsville*
TABLE 6	Recruiting Minority Youth. *Bruce W. Jones, Notre Dame College of Ohio, Bonnie Kelly, Cleveland Heights-University Heights Schools/NDC Graduate; Deborah Picker, NDC Graduate/Mayfield Heights Schools Consultant; Laurel Shamakian, Cleveland Heights-University Heights Teacher*
TABLE 7	Teaching Migrant Students: The Voice of Classroom Teachers. *Michael H. Romanowski, Ohio Northern University*
TABLE 8	Classroom Teachers' Personal Representations of Learning Theory. *Renee W. Campoy, Murray State University*
TABLE 9	Kindergarten Teachers' Perceptions of Play: A Case Study. *Glenna M. Weis, Springfield Public Schools; E. P. Johnsen, University of Kansas*
TABLE 10	An Empirical Investigation of Three Interdisciplinary Course Models. *Albert M. Bugaj, University of Wisconsin-Marinette*
TABLE 11	Engaged Learning: A Transition for Higher Education. *Thomas J. Cody, Western Illinois University, Rodney J. Greer, Western Illinois University*
TABLE 12	Redefining Parental Involvement in a Diverse Society: A Psycho-socio Development Paradigm of African American Families. *Ernescia M. Torbert-Richardson, Cleveland State University*
TABLE 13	* Hot Topics Discussion: Youth Identity in Crisis Again. *Joan S. Timm, University of Wisconsin-Oshkosh; Marguerite Penick-Parks, Ripon College*
TABLE 14	* Hot Topics Discussion: Y2K: Is It a Problem for Your School? *James McCluskey, Central Michigan University; James Necessary, Ball State University*
TABLE 15	* Hot Topics Discussion: A Diversity Dialogue: Race Issues in Higher Education. *A. William Place, University of Dayton; Roberta Boyd, Wright State University; Cheryl Marcus, Central State University; Jean Sanders, Bowling Green State University; Reva Cosby, University of Dayton*
TABLE 16	* Hot Topics Discussion: Kids Killing Kids. *Richard P. Lipka, Pittsburg State University; Brenda LeTendre, Pittsburg State University*
TABLE 17	* Hot Topics Discussion: An Examination of Problem-based Learning. *Jean W. Pierce, Northern Illinois University; Sarah Sage, University of Indiana, South Bend*
TABLE 18	* Hot Topics Discussion: A Comparison of Educational Effectiveness Between the C.I.S. and the U.S.A. *John Daly, The Johns Hopkins University; Thomas S. Parish, Kansas State University*
TABLE 19	* Hot Topics Discussion: Ways to Teach Values and Responsibility to Antisocial Boys. *Donald A. Boyd, Arkansas Special Education Resource Center; Lisa Johnson, Arkansas Special Education Resource Center*
TABLE 20	* Hot Topics Discussion: Can Faculty Predict Successful Field Performance from Students' Classroom and Laboratory Work? *Beverly M. Klecker, Eastern Kentucky University; Linda M. Martin, Eastern Kentucky University*
TABLE 21	* Hot Topics Discussion: Assessment for Substantive Post-secondary Curricular Reform. *Margaret A. Simpson, Northwestern University Medical School; Jacqueline Rickman, Western Illinois University*
TABLE 22	* Hot Topics Discussion: Meeting the Challenge of Children with Special Needs in the School System: A Winning Combination with School Counselors and Special Education Teachers. *Eddie E. Glenn, Illinois State University; Mack Bowen, Illinois State University*
TABLE 23	* Hot Topics Discussion: Assessment Issues in Case-based Teaching. *Mary Sudzina, University of Dayton; Theodore Kowalski, Ball State University*
TABLE 24	* Hot Topics Discussion: Pre-service Teacher Education Programs: Are They Working? *Kathleen Sparrow, Akron Public Schools; Francis Broadway, The University of Akron*

F.1610.AH Strategies for Teaching With Cases in Teacher Education

Division C: Learning and Instruction — **Workshop**
Friday, 4:10 pm to 5:30 pm — American House
CHAIR *Mary R Sudzina, The University of Dayton; Theodore Kowalski, Ball State University*
NOTES *Maximum Enrollment 30; Fee: N/C*
PRESENTATIONS

This workshop will focus on strategies for successfully integrating case studies in undergraduate and graduate teacher education programs. Teaching with cases can offer educators a variety of opportunities to expand and extend their teaching skills, problem-solving abilities, and grasp of contemporary issues in classrooms today. The session will begin with an introduction to teaching with cases and then discuss the myths of case-based teaching. A checklist for getting started with cases and adapting a case to course content will be illustrated. Five steps for successfully facilitating a case will be demonstrated followed by a question and answer period. All participants will have the opportunity to purchase Case Study Applications of Teacher Education: Cases of Teaching and Learning in the Content Areas (Allyn & Bacon, 1999) at a special MWERA conference rate. The session will conclude with a book signing.

F.1610.BH Evaluation Methodology and Issues: Session II

Division H: School Evaluation and Program Development — **Paper Presentation**
Friday, 4:10 pm to 5:30 pm — The Bulls Head
CHAIR *Sharon Valente, Ashland University*
DISCUSSANT *Philip Griswold, Ashland University*
PRESENTATIONS

Perceptions of Graduate Education Students Regarding Scientific Cheating and the Relation to Personal Behavior. *Isadore Newman, University of Akron; Donna Waechter, University of Akron*

The Feasibility of Using Multiple Assessments to Measure Student Performance on State Content Standards. *Chad W. Buckendahl, University of Nebraska – Lincoln; Barbara S. Plake, University of Nebraska; James C. Impara, University of Nebraska; Rob Spies, University of Nebraska; Gerald Giraud, University of Nebraska; Patrick Irwin, University of Nebraska*

The Influence of a Message's Reception as a Function of Perceived Feminist Authorship. *John M. Laux, The University of Akron; Isadore Newman, The University of Akron*

F.1610.CH Recognizing Gender/Ethnicity Issues

Division G: Social Context of Education — **Paper Presentation**
Friday, 4:10 pm to 5:30 pm — Columbian House
CHAIR *Wallace Sherlock, University of Wisconsin -Whitewater*
DISCUSSANT *Anne Stinson, University of Wisconsin-Whitewater*
PRESENTATIONS

American and Asian College Students' Perceptions of an Easy Course, Challenging Course, and Just Right Course. *Aimin Wang, Miami University*

Perceptions of Gender by Pre-service Teachers - Practical Implications for an Understanding of Marginalized Experiences. *Michael L. Slavkin, Indiana University - Bloomington*

The Thing You Think You Cannot Do: One Woman's Journey into Doctoral Studies. *Marianne R Mercer, Indiana University*

Undergraduate Women's Unique Struggles In the Absence of a Visible Same-Gender Role Model: The Desire for a Career in Medicine versus Traditional Values. *Joyce C. Miller, Mount Vernon Nazarene College*

F.1610.MA Making Sense Out Of The Dissertation Process and Outcome

Division A: Administration — **Symposium**
Friday, 4:10 pm to 5:30 pm — Mansion House
CHAIR *Randall L. Turk, Wichita State University*
DISCUSSANT *Randall L. Turk, Wichita State University*
PRESENTATIONS

Making Sense Out of the Dissertation Process and Outcome. *Michael L Supley, Texas A&M University--Kingsville; James K. Walter, Texas A&M University--Corpus Christi; William L. Sharp, Southern Illinois University at Carbondale*

F.1610.SH Factors That Affect Academic Performance and Grade Inflation in Post-secondary Students

Division J: Postsecondary Education — **Paper Presentation**
Friday, 4:10 pm to 5:30 pm — Shakespeare Hotel

CHAIR *Tom Cody, Western Illinois University*
DISCUSSANT *Margaret A. Simpson, Northwestern University Medical School*

PRESENTATIONS

Dimensions of Grade Inflation at a Midwestern University. *Yanling Zhang, Ohio University; Donna Tromsky, Ohio University; Humaira Al-suleimani, Ohio University; Gulsah Gocmen, Ohio University; Robert Barcikowski, Ohio University*

Effects of Liking and Disliking the Instructor on College Student Motivation and Achievement. *Gregory P. Montalvo, Western Illinois University; Eric A. Mansfield, Western Illinois University*

Predictions, Personality Traits, and Attributions: Successful and Unsuccessful College Students. *Peter J. Brady, Clark State Community College*

F.1610.ST Cross Currents in Educational Reform

Division K: Teaching and Teacher Education — **Paper Presentation**
Friday, 4:10 pm to 5:30 pm — Steamboat Hotel

CHAIR *Carole Newman, The University of Akron*
DISCUSSANT *Jay R Price, University of Wisconsin - Stevens Point*

PRESENTATIONS

Eight Forms of Positive Teaching Efficacy that Create Obstacles for Educational Reform. *Karl F. Wheatley, Cleveland State University*

The Impact of Two Professional Development Schools on Secondary Education Majors: A Five-Year Review. *Barbara M. Powell, Eastern Illinois University; Elizabeth A. Wilkins-Canter, Towson University*

The Role of Teachers' Decision-Making in Middle School Reform: A Case Study. *Linda E. Morrow, Muskingum College; Kaye M. Martin, Muskingum College; Patricia Bennett, East Muskingum Middle School*

F.1610.WS Validation Issues Related to Various Instruments and Groups

Division D: Measurement and Research Methodology — **Paper Presentation**
Friday, 4:10 pm to 5:30 pm — Western Stage House

CHAIR *Dennis W. Leitner, Southern Illinois University*
DISCUSSANT *Thomas Knapp, Ohio State University*

PRESENTATIONS

Meta Analysis of Equivalence of Computerized and Pencil-and-Paper Testing for Ability Measures. *Jong-Pil Kim, Michigan State University*

Test Score Growth Patterns for Student Groups Defined by Ethnicity, Free Lunch and Mobility. *Jeffrey Kelly, University of Kansas; Md Hafidz Omar, University of Kansas; Mark Pomplun, University of Kansas*

The Perceived Effects of Instructional Strategies on the Success of Graduate Level Education Students in Introductory Statistics Course. *Simone W. Bess, Northern Kentucky University*

Validity of the Prototype Dental Hygiene Admission Test. *Gene A. Kramer, American Dental Association*

F.2100.WP President's Reception MWERA --

Friday, 9:00 pm to 12:00 am —
Wolf Point Pre-Function Room

HOST *Thomas S. Parish,*
Kansas State University

Invitation to the President's Reception

Friday stands for fun,
and special desserts plus good music, too,
will be at the President's reception,
just waiting for you!
It's our big night together,
So join us when you can.
We'll save a special place for you,
'cause you're part of the M-WERA clan!

TSP

Chronological Listing of Sessions
Saturday, October 16, 1999

S.0800.AH MWERA Website Workshop

MWERA — Workshop
Saturday, 8:00 am to 9:20 am — American House

CHAIR *Jeffrey B. Hecht, Illinois State University*

NOTES *Strongly recommended for Associate Program Chairs, and newly elected Division Senior and Junior Chairs who have an interest in utilizing the on-line proposal submission and review system for next year's conference.*

S.0800.BH MWERA-99 Conference Feedback

MWERA — Alternative Session
Saturday, 8:00 am to 9:20 am — The Bulls Head

CHAIR *E. Jane Williams, The Ohio State University*

NOTES *Come and give your feedback about this year's conference; help to plan next year's meeting!*

S.0800.CH Curricular Issues for Diverse Learners

Division B: Curriculum Studies — **Paper Presentation**
Saturday, 8:00 am to 9:20 am — Columbian House

CHAIR *James Powell, Ball State University*

DISCUSSANT *Brad Oliver, Ball State University*

PRESENTATIONS

A Study of the Retirement Experience. *Marsha Rossiter, University of Wisconsin Oshkosh; Patricia J. Koll, University of Wisconsin Oshkosh*

Defeating the SES Trap: Direct Instruction as Comprehensive School Reform. *Judith J. May, Bowling Green State University/Toledo Public Schools; Amy Wichman-Warner, Toledo Public Schools*

Relational Views: Instrument Development and Implications for Teacher-Student Interactions. *Marlene Schommer, Wichita State University; Orpha K. Duell, Wichita State University*

The Efficacy of a Curricular-predicted Stratagem and the Advanced Placement English Language and Composition Examination. *Nancy LaPointe, Texas A&M -- Corpus Christi/Kingsville*

S.0800.LH Multicultural Studies

Division K: Teaching and Teacher Education — **Paper Presentation**
Saturday, 8:00 am to 9:20 am — Lake House

CHAIR *Marta J Coleman, University of Nebraska*

DISCUSSANT *Maria M Ferreira, Wayne State University*

PRESENTATIONS

Culturally Responsive Instruction of Indigenous Learners and Correspondence of this Instruction with Constructivist Learning Theory. *Judith Hankes, University of Wisconsin Oshkosh; Gerald R. Fast, University of Wisconsin-Oshkosh*

Diversity: Teacher Perceptions of Implementing a Vision in Illinois. *Larry F Cross, Governors State University; Burton Collins, Governors State University; Raquel Herrera-Byrne, Governors State University; E. Jean Johnson, Governors State University; Karen M. Peterson, Governors State University*

Training of Cooperating Teachers in India. *Hema Ramanathan, Butler University*

What Do You See? *Clara A New, University of Wisconsin-Parkside*

S.0800.MA Special Education: Helping Children Learn

Division E: Counseling and Human Development — **Paper Presentation**
Saturday, 8:00 am to 9:20 am — Mansion House
CHAIR *Connie L. Bowman, University of Dayton*
DISCUSSANT *Connie L Bowman, University of Dayton*
PRESENTATIONS

Parenting and Achievement: Are Effective Styles Different Among Diverse Student Groups? *Sharon E. Paulson, Ball State University; Barbara A. Rothlisberg, Ball State University; Laura R. Gerig, Taylor University*

Secondary Teachers' Perceptions of Regular Education Initiative. *Linda H Chiang, Anderson University*

S.0800.SH Evaluation of Educational Programs and Class Scheduling

Division H: School Evaluation and Program Development — **Paper Presentation**
Saturday, 8:00 am to 9:20 am — Shakespeare Hotel
CHAIR *John Fraas, Ashland University*
DISCUSSANT *Kathleen Sparrow, Akron Public Schools*
PRESENTATIONS

Block Scheduling: Physical Education Teachers' Perceptions of a Magic Cure-all for the Ills of Secondary Physical Education. *Anne D Stinson, University of Wisconsin-Whitewater; Bruce Bukowski, U of Wisconsin-Whitewater*

Program Evaluation for Curriculum Development. *J-Louis P Dassier, University of Southern Mississippi*

The 'Baby Think It Over' Doll: Evaluation of a School-based Teen Pregnancy Prevention Program. *Stephanie A. Johnson, Eastern Illinois University; Cheryl L. Somers, Wayne State University*

S.0800.ST Issues of Successful Schools

Division A: Administration — **Paper Presentation**
Saturday, 8:00 am to 9:20 am — Steamboat Hotel
CHAIR *Jay C. Thompson, Jr., Ball State University*
DISCUSSANT *Jay C. Thompson, Jr., Ball State University*
PRESENTATIONS

Interpersonal Relationships of Successful Teams. *Randall L. Turk, Wichita State University; Kerri L. Turk, James Madison University*

Pluralism in Rural America: A Case Study of Leadership Responses to Student Diversity. *Michael Brunn, Western Illinois University*

The Vexing Problem of Perennial Substitute Teacher Shortages in Ohio. *Philip A Griswold, Ashland University; William Hughes, Ashland University*

S.0930.MH MWERA Presidential Address

MWERA — Invited Address
Saturday, 9:30 pm to 10:20 am — Merchants Hotel
CHAIR *Jeffrey B. Hecht, Illinois State University*
PRESENTATION

Education in Crisis. Solution: Don't Get Tough, Just Get Connected! *Thomas S. Parish, Kansas State University*

Thomas S. Parish is a professor in the Department of Foundations and Adult Education at Kansas State University. He has authored or co-authored approximately 220 articles that have been published in more than thirty referred journals plus he has presented or co-presented 300+ research papers, symposia and workshops at various regional, national, and international professional meetings. He is currently serving on the editorial boards of five professional journals, and also serves as a faculty member for the William Glasser Institute.

The presentation will seek to address how and why our nation's schools are currently in trouble, and what teachers need to do in order to overcome these problems in the foreseeable future.

BEST COPY AVAILABLE

S.1030.AH A Potpourri of Trends

Division A: Administration — **Paper Presentation**
Saturday, 10:30 am to 11:50 am — American House
CHAIR *William L. Sharp, Southern Illinois University at Carbondale*
DISCUSSANT *William L. Sharp, Southern Illinois University at Carbondale*
PRESENTATIONS

Cosmosphere Academy: A School of the Future. *Randall L. Turk, Wichita State University*

Hypertrophic Shifting: Creating a Systemic Model of Transformational Leadership and Change in Public Education. *Page A. Smith, The Ohio State University*

Machiavelli vs. Stephen Covey: Two Contrasting Theories of Educational Leadership. *Donald J McCarty, Cardinal Stritch University*

Principals and Pastors as Partners in Administration: An International Perspective. *Barbara L. Brock, Creighton University; Dr. Jennifer Fraser, St. Michael's Primary School, New South Wales*

S.1030.BH MWERA 2000 Conference Planning

MWERA — Meeting
Saturday, 10:30 am to 11:50 am — The Bulls Head
CHAIR *Carmen Giebelhaus, University of Dayton*
PRESENTATIONS

Come and help plan next year's conference. All division chairs for the 2000 conference should attend.

S.1030.LH Enhancing Post-secondary Students` Performance

Division J: Postsecondary Education — **Paper Presentation**
Saturday, 10:30 am to 11:50 am — Lake House
CHAIR *Rodney J. Greer, Western Illinois University*
DISCUSSANT *Jacqueline Rickman, Western Illinois University*
PRESENTATIONS

Action Research: The Use of Hypernews Helps Enhance Learning Outcome of Students. *Ni Chang, University of Wisconsin-Whitewater*

Case-based Instruction in Post-secondary Education: Developing Students` Problem-solving Expertise. *Peg A Ertmer, Purdue University; Don Stepich, Northeastern Illinois University*

Cheat Sheets: Do They Really Improve Students` Test Performance. *James A Salzman, Ursuline College*

S.1030.MA Issues in Tests and Measurement

Division C: Learning and Instruction — **Paper Presentation**
Saturday, 10:30 am to 11:50 am — Mansion House
CHAIR *Cynthia Campbell, Northern Illinois University*
DISCUSSANT *Ervin F. Sparapani, Saginaw Valley State University*
PRESENTATIONS

An Analysis of the Characteristics of the Sternberg Triarchic Abilities Test. *Cassandra J. Meyers-Tate, Southern Illinois University*

Changes in the Underlying Structure of an ESL Reading Comprehension Test. *Kyle Perkins, Southern Illinois University; John Pohlmann, Southern Illinois University; Sheila Brutten, Southern Illinois University*

Convergent and Discriminant Validation of Flexible Combination Ability. *Ronna F. Dillon, Southern Illinois University; George M. Vineyard, Southern Illinois University*

S.1030.SH Data Analysis in Teacher Education

Division K: Teaching and Teacher Education — **Paper Presentation**
Saturday, 10:30 am to 11:50 am — Shakespeare Hotel

CHAIR *Rose M Scott, University of Wisconsin - Parkside*
DISCUSSANT *Kim Metcalf, Center for Evaluation, Indiana University*
PRESENTATIONS

Teachers as Raters: Data Analysis and Lessons Learned. *Hema Ramanathan, Butler University; Annette Jones, Immaculate Heart of Mary School; Deb Lesser, IPS Emmerich Manual High School; Amy Schaffer, College Park Elementary School*

Teachers' (Mis)Conceptions of Classroom Test Validity & Reliability. *Craig A Mertler, Bowling Green State University*

The Multidimensional Character of Teaching Effectiveness: A Comparative Analysis of Student Evaluation Responses of Full and Part-time Faculty. *Jerry C. Obiekwe, The University of Akron-Wayne College*

S.1030.ST Training of Pre-service Teachers

Division K: Teaching and Teacher Education — **Paper Presentation**
Saturday, 10:30 am to 11:50 am — Steamboat Hotel

CHAIR *Sue Amidon, Wright State University*
DISCUSSANT *Carole L Bentley, Chicago State University*
PRESENTATIONS

Differences in Needs During Different Teacher Training Situations. *Charles K Runyan, Pittsburg State University; Alice Sagehorn, Pittsburg State University*

Predictors of Pedagogical and Conceptual Change in Pre-service Teachers. *Patricia A. Sellers, Indiana University-Purdue University, Fort Wayne; Kathryn A. Ahern, Indiana University-Purdue University, Fort Wayne*

Windows and Mirrors: Using Literature as a Reflective Tool. *Allison K. Hoewsich, University of Missouri-St. Louis*

S.1300.SH MWERA-99 Board of Directors Meeting

MWERA — Meeting
Saturday, 1:00 pm to 5:30 pm — Shakespeare Hotel

CHAIR *Jeffrey B. Hecht, Illinois State University*
NOTES

MWERA Board of Directors Meeting. *Thomas S. Parish, Kansas State University; Jeffrey Hecht, Illinois State University; Kim Metcalf, Center for Evaluation, Indiana University; Jean W. Pierce, Northern Illinois University; E. Jane Williams, The Ohio State University; James Powell, Ball State University; Carmen Giebelhaus, University of Dayton; Robert Barcikowski, Ohio University; Margaret A. Simpson, Northwestern University Medical School*

Thank you for helping make this a special conference!

Cross-Index to Session Sponsors

Division A: Administration
T.0800.LH / Achieving Achievement, Quality, or Numbers?
T.0800.MA / School Safety, School Violence, and the Law
T.1030.LH / The Superintendency: Ever Present Issues
T.1610.SH / Impact of Personal Dimensions and the Schooling Process
T.1610.ST / Where Does Authority Reside?
F.0800.LH / School Administration in the Next Millennium
F.0800.ST / Leadership Preparation: Two Perspectives
F.1030.WS / Division A Business Meeting
F.1340.ST / Trends in Principal Preparation
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Conference At-A-Glance

Time	American House	Columbian House	Lake House	Mansion House	Merchants Hotel	Sauganash East	Sauganash West	Shakespeare Hotel	Steamboat Hotel	The Bull's Head	Western Stage House	Wolf Point Pre-function
Wednesday												
3:10pm	MWERA Workshop											
3:10pm – 5:30pm	**Conference Registration**											
8:00pm						Kick-Off Dr. Sikula						
Thursday												
8:00am - 5:00pm	**Conference Registration**											
8:00am	Div J Meeting	Div D Symposium	Div A Paper	Div A Paper				Div H Paper	Div G Paper	Div D Paper	Div K Symposium	
9:30am						Keynote Dr. Sikula						
10:30am	Div B Alt Session	Div E Meeting	Div A Paper	Div H Meeting				Keynote Follow-Up	Grant Writing Workshop	New Member	Div K Paper	
Noon						Association Council Meeting						
1:40pm	Div C Alt Session	Div F Invited Speaker & Meeting	Div E Paper	Div B Meeting				MWERA Symposium	Div J Symposium	Div K Paper	Div D Paper	
3:10pm						Roundtables/ Posters						
4:10pm	Div K Paper	Editorial Board	Div B Paper	Div D Paper				Div A Paper	Div A Paper	Div C Paper	Div K Paper	
6:00pm												Cracker Barrel
Friday												
Thursday												
8:00am - 5:00pm	**Conference Registration**											
8:00am	Div B Symposium	Div C Symposium	Div A Paper	Div K Paper				Div K Symposium	Div A Paper	Div H Paper	Div D Paper	
9:30am						Business Meeting						
10:30am	Div C/F Paper	Div G Meeting	Div E Paper	Div I Meeting				Div D Alt Session	Div H Alt Session	Div K Meeting	Div A Meeting	
Noon							Luncheon Dr Cruickshank					
1:40pm	Div G Paper	Div I Paper	Luncheon Follow-Up	Div C Meeting				Div D Invited Speaker & Meeting	Div A Paper	Div B Paper	MWERA Invited Panel	
3:10pm			Div F Workshop			Roundtables/ Posters						
4:10pm	Div C Workshop	Div G/I Paper		Div A Symposium				Div J Paper	Div K Paper	Div H Paper	Div D Paper	
9:00pm												President's Reception
Saturday												
8:00am	MWERA Workshop	Div B Paper	Div K Paper	Div E Paper				Div H Paper	Div A Paper	Conference Feedback		
9:30am					Presidential Dr. Parish							
10:30am	Div A Paper		Div J Paper	Div C Paper				Div K Paper	Div K Paper	Conference Planning		

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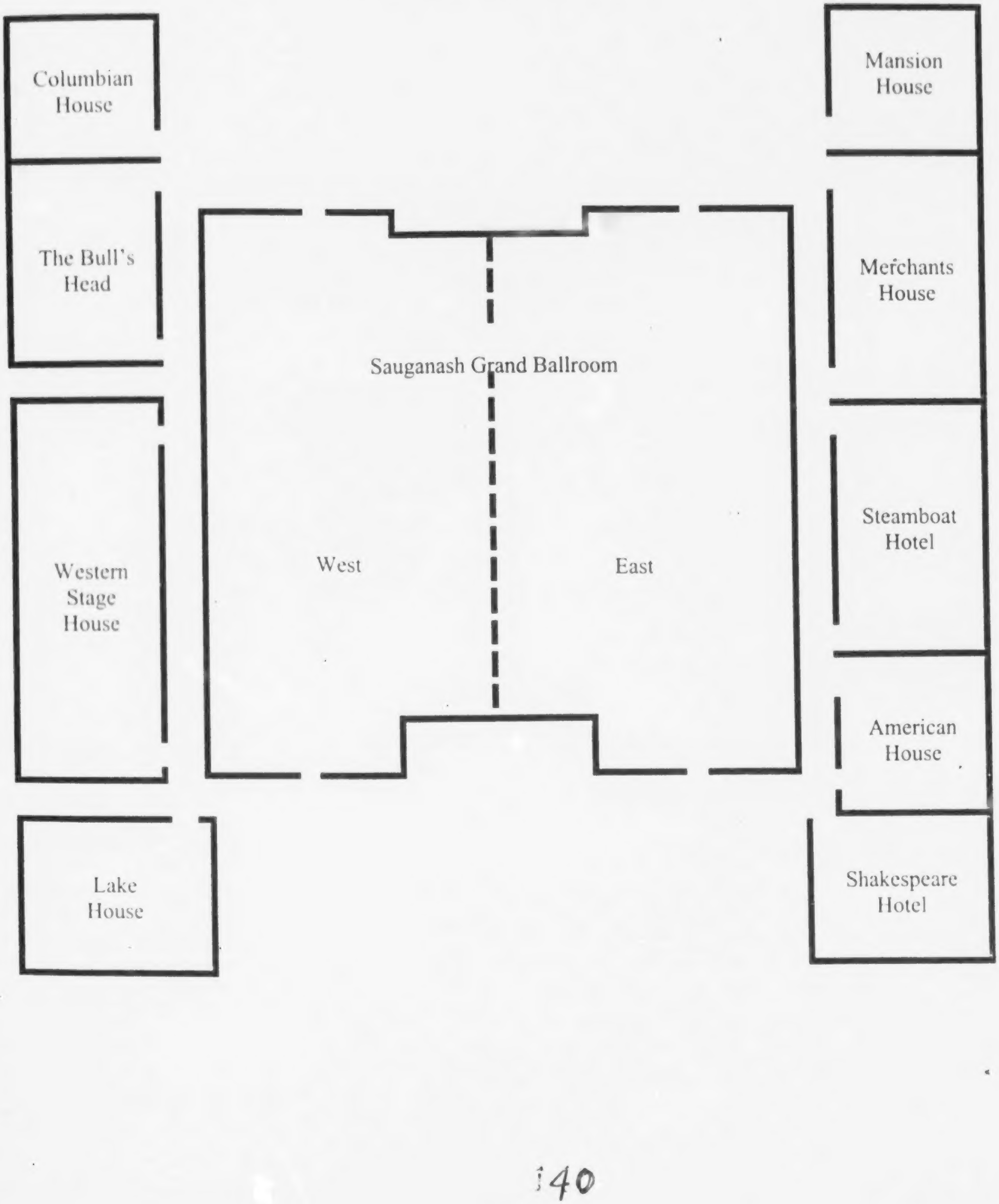
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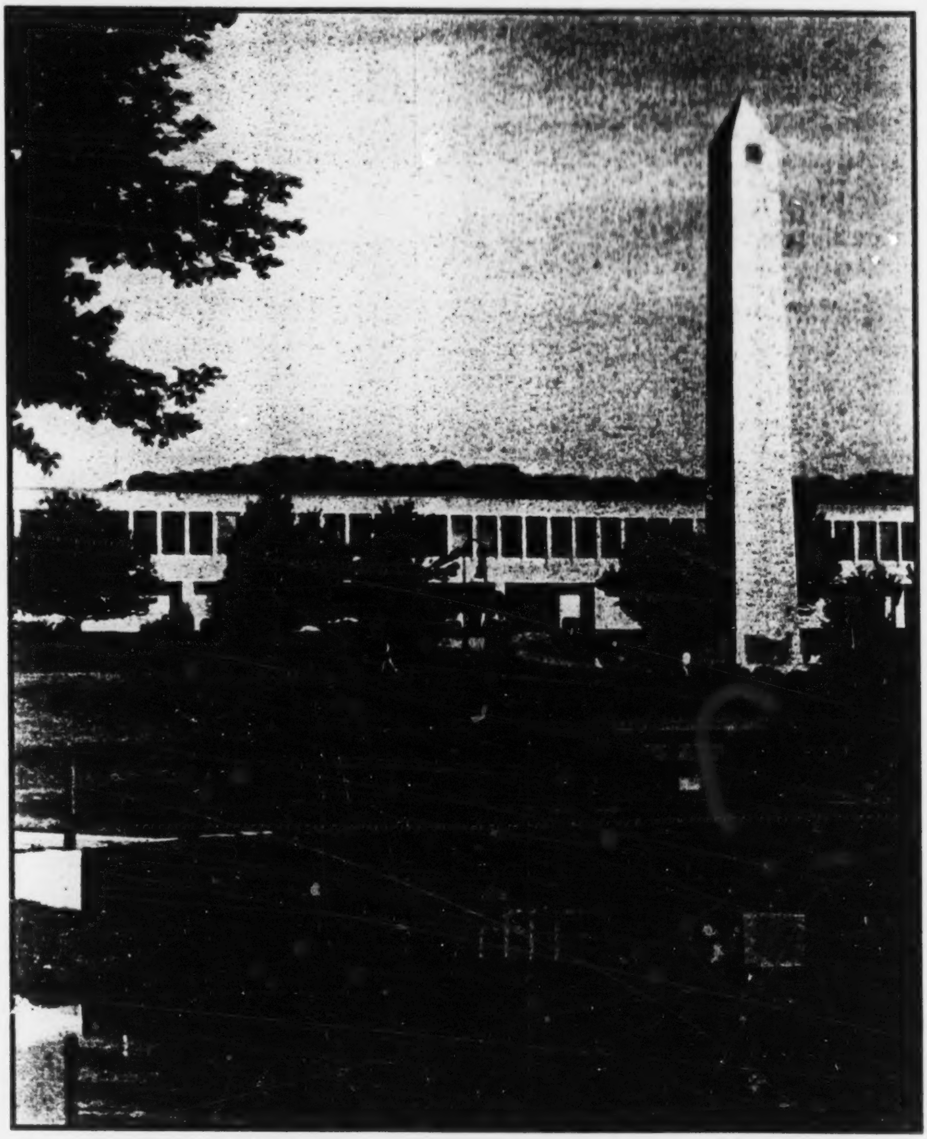

The Newark Campus, The Ohio State University at Newark

On the Cover

Students from Central Ohio Technical College and The Ohio State University at Newark share the facilities that comprise the Newark Campus. The 155-acre campus, which features four academic buildings, contain all the necessary components for this unique partnership. A library, recreational facilities, child development center, and classrooms and laboratories that utilize all the latest technologies are just some of the features within the Newark Campus which assist in providing students with a well-rounded education. The campus also offers the students a variety of programs to meet the social, recreational and family life needs.

The Ohio State University at Newark offers one to four years of study toward most of Ohio State's 220 undergraduate majors in business, art, science, humanities and the pre-professional areas of allied medicine, dentistry, law, medicine, nursing, optometry, pharmacy and veterinary medicine. The campus also provides baccalaureate and master's degree programs in Early and Middle Childhood Education. Selected graduate-level courses in business administration, social work and education are also offered. The Associate of Arts Degree is awarded to students who have completed two years of specified study.

Central Ohio Technical College offers programs that provide a blend of technological and theoretical instruction designed to meet the needs of area employers. The college grants associate degrees in Nursing (RN), Radiographic Technology (RT), Diagnostic Medical Sonography, Physical Therapist Assistant, Early Childhood Development, Human Services, business Management, Accounting, Computer Programming, Office Administration, Criminal Justice, Drafting and Design, Electronic Engineering and Electromechanical Engineering.

Information for Contributors to the Mid-Western Educational Researcher

The *Mid-Western Educational Researcher* accepts research-based manuscripts that would appeal to a wide range of readers. All materials submitted for publication must conform to the language, style, and format of the *Publication Manual of the American Psychological Association*, 4th ed., 1994 (available from Order Department, American Psychological Association, P.O. Box 2710, Hyattsville, MD 20784).

Four copies of the manuscript should be submitted typed double-spaced (including quotations and references) on 8½ x 11 paper. Only words to be italicized should be underlined. Abbreviations and acronyms should be spelled out when first mentioned. Pages should be numbered consecutively, beginning with the page after the title page. Manuscripts should be less than 20 pages long. An abstract of less than 100 words should accompany the manuscript.

The manuscript will receive blind review from at least two professionals with expertise in the area of the manuscript. The author's name, affiliation, mailing address, telephone number, e-mail address (if available), should appear on the title page only. Efforts will be made to keep the review process to less than four months. The editors reserve the right to make minor changes in order to produce a concise and clear article. The authors will be consulted if any major changes are necessary.

Manuscripts should be sent with a cover letter to:

Mary K. Bendixen-Noe, *MWER* Co-Editor
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Mentoring: An Introduction

Mary K. Bendixen-Noe
The Ohio State University, Newark
Carmen Giebelhaus
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Only one in five teachers feels "very well prepared" to work in today's classroom (NCES, 1999). One reason cited was the lack of opportunity for conferring with colleagues. Among teachers whose schools dedicate time for working with other teachers, 40% say it improves their teaching "a lot", and another third say it improves their teaching "moderately" (NCES, 1999).

From this and other studies, teachers are telling us that collaboration and having time to work with others is important to them, their teaching, and ultimately our children. Mentoring was mentioned as one vehicle to develop these associations. Sadly, however, only 19% of the teachers said they had been formally mentored by another teacher. Of those, over 70% said once-a-week mentoring helped their teaching and professional growth "a lot" (NCES, 1999).

Currently, twenty-eight states and the District of Columbia have instituted some form of mentoring (Halford, 1999). Obviously, policies to establish mentoring programs have been and continue to become an important issue. The wave of teacher retirements, the publics focus on educational quality, and the high attrition rate of new teachers have compelled legislators and the public to create induction programs to support new teachers.

Education organizations have responded with special interest groups on mentoring, numerous working sessions at annual conferences and thematic issues. As my five year-old son would say, "It's hot hot hot!"

This special thematic issue of the Midwest Education Researcher focuses on mentoring in the Midwest. Members of MWERA from various states who have conducted research in mentoring and who have been involved either in planning, implementing or evaluating mentoring programs were asked to contribute. We have attempted to bring a diverse range of views regarding mentoring. Bainer describes her research where issues regarding mentoring in elementary school settings have emerged. Stinson looks at the impact of legislated mentoring programs in New Jersey and their implications for Wisconsin's newly mandated teacher licensing in which mentoring is required. Giebelhaus gives evidence regarding the impact of mentor training on beginning teachers in her study. Runyan looks at why it is important to have a clear framework in implementing mentor programs and the importance in assessing their effectiveness.

Stakeholders in mentoring have also been addressed in this issue. Brock analyzes the importance and impact of principals with regards to induction year programs. Bendixen-Noe describes issues facing teacher unions as they negotiate contracts in which mentoring has become a factor.

Finally, two articles deal with the role of universities and mentoring programs. Salzman gives details about a university course that was designed for mentors of beginning teachers. Bowman and Ward write about an award winning university/school partnership program focusing on mentoring based on researched effective pedagogical principles and the use of technology in that program.

We think you will find the articles presented, ones that will not only inform you, but may encourage you to look at the mentoring programs in your area. The impact of mentoring programs are far reaching. Ultimately, such programs should help our children reach appropriate learning goals by ensuring that highly qualified teachers are in their classrooms.

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Editorial Note: This special issue on mentoring is an invited issue. The articles were not peer-reviewed, but solicited by the editors of this special issue: Mary K. Bendixen-Noe and Carmen Giebelhaus. We would like to thank the two special issue editors for their hard work on this issue.

Issues in Mentoring Programs for Teachers

Deborah L. Bainer
The Ohio State University, Mansfield

Hundreds of years ago, the land known today as Kampuchea was a strong and peaceful Asian kingdom. The land was virtually impervious to attack from the fierce nations surrounding it. Their defense? A thick, impenetrable forest of bamboo plants surrounding the nation. For generations, the Kampucheans lived safely and worked together, protected by the stand of bamboo. Their downfall came when one innovative aggressor scattered gold nuggets among the bamboo plants. The Kampucheans scrambled greedily to collect nuggets for themselves, cutting down the bamboo plants to more easily mine the gold. They were no longer working together and their best defense was lost: their nation was overrun and a history of decline began.

In America today, public education is frequently under attack. Our greatest strength as educators should be in working together, nurturing each other, and protected by a strong boundary of valid, research-based educational practice. Instead, teachers generally work individually in often hostile work cultures. After the first year of her move from an upper elementary to a lower grade level, one experienced and capable teacher shared her feelings:

> Since moving to the elementary wing of the building, I have felt very isolated from my peers. All I ever see all day is my students. I have only developed one close relationship and I do feel that this has affected my professional self-image. I am becoming very dissatisfied with my situation because I feel like an outsider. Not a day goes by that I don't wish that I hadn't left my old position. I thought the grass looked greener on the other side, but what I found was a lot of crab grass.

When we fail to work together, we increase our vulnerability to attack from outside forces. The result is that experienced teachers become immune to or cynical about schooling and withdraw. Worse yet, the individualistic environment is often fatal to novices and to those most committed to good teaching.

Mentoring programs are a promising strategy to defend and build our ranks by pulling educators together to work and build educational practices. While mentoring programs are receiving increased state and national support, the way we traditionally implement these programs may not be the best way to draw educators together and to provide professional development. Further, the context of American education may not be conducive to effective mentoring practices. This paper raises three issues regarding mentoring practices which have arisen from my collaborative research on how teachers work together in naturalistic elementary school settings.

Issue 1: Mentoring is just one of the types of support behaviors needed and practiced by teachers in elementary schools.

Our research suggests that teachers interact for a variety of reasons in elementary schools. A content analysis of over 500 teacher interactions across 76 days showed conversations focused on teaching (problem solving, decision making, soliciting help, giving help, and completing tasks), focused on teachers (expressing frustration and/or helplessness, expressing feelings, empathizing), and general interactions (giving information, receiving information, discussing, conversing lightly, receiving encouragement, giving encouragement, and building relationships) (Bainer and Didham, 1991).

Teachers supporting each other, often referred to as "mentoring," is one function of those interactions. That is, formal mentoring, as it is generally defined and practiced in school districts, is just one way teachers naturally support each other in school settings. Closer examination of over 400 teachers' perceptions of the types of support they give and receive in elementary schools identified six dimensions or types of support practices regularly among teachers (Bainer and Didham, 1994).

- Mentoring—a non-reciprocal relationship for receiving advice, information, encouragement, and guidance from more experienced others in the workplace;
- Supporting—a reciprocal relationship providing mutual psychosocial support including friendship, confirmation, and emotional support;
- Collaborating—a career-enhancing relationship among colleagues that enables them to fulfill professional responsibilities and address student needs and school-related problems;
- Career Strategizing—a non-reciprocal relationship providing visibility, recognition, and responsibility in the school and community;
- Supervising—a non-reciprocal relationship in which solicited and unsolicited feedback is provided; and
- Grounding—providing "insider information" about the ins and outs of the district, school, and larger teaching field.

These findings concur with research in business and industry that a variety of personal and professional support is available in the workplace (Kram and Isabella, 1985). In elementary schools, problems arise when teachers are unable or unwilling to develop support relationships. Lack of supportive relationships leads to poor professional self-image (Cruickshank and Associates, 1980), low job satisfaction (Friesen, Prokop, and Sarros, 1988), and is frequently cited as a leading cause of teachers leaving the profession (Alexander, Adams, and Martray, 1983; Lortie, 1975). These findings are well illustrated by the teacher quote shared earlier.

Not only do teachers perceive of a variety of types of support, but they also attest that this comes from a range of individuals in the workplace (Bainer and Didham, 1991). This reiterates research from the business world that support tends to be provided by a variety of people at a variety of levels within the hierarchical structure of the organization (Kram and Isabella, 1985).

What does this say to mentoring programs in education? It suggests that the traditional mentor-portage dyad may not be an appropriate model. One person, assigned to work with a neophyte teacher, may not be capable of providing the professional, personal, and social interactions and support required for healthy professionalism. Instead, teachers may need to turn to a variety of people to meet a variety of needs in the broad education context. A more appropriate model may be the "cluster model" of mentoring, in which numerous situation-centered relationships are developed rather than just one close mentoring relationship. That is, we all need to work together in the school context. Mentoring, or providing support, is everyone's responsibility and our best defense against outside forces that would disrupt or distract us from the goals of education.

Issue 2: Support networks differ between male and female teachers.

Our early research identified a profile of six separate dimensions or types of support perceived of by elementary teachers (Bainer and Didham, 1994; discussed above). Contrary to the popular assumption that novice teachers need and receive more and different types of support than do experienced teachers, data analysis showed no significant difference in the profile of types of support given or received based on the teachers' years of experience. Further, there was no difference in the types of support given or received based on school locale. That is, urban, suburban, and small town/rural elementary school teachers said they needed, received, and rendered the same types of support. Gender, however, did significantly impact support networks. A follow-up study to investigate gender differences in how teachers perceive their support for each other reaffirmed the six separate dimensions of support among female teachers (Bainer, 1995). In contrast, male elementary teachers perceived of eight dimensions or types of support in their networks in elementary schools. While relationships identified by female teachers tended to integrate or blend work-related and psychosocial functions, relationships identified by males served discrete, focused psychosocial or professional functions. Specifically, factor analysis suggested that the female teachers perceived of a dominate Mentoring factor which broadly defined mentoring as a combination of personal and work-related support behaviors. In contrast, the male teachers separated this Mentoring factor into four distinct factors. Males clustered many items related to professional development and success, especially understanding how to influence others and how to function within the organizational structure. Males also separated out a distinct Peer Mentoring factor, in which colleagues take action on the teacher's behalf; and Advocating factor in which a superior or influential person provides opportunities and visibility in a variety of social and professional settings; and a Modeling factor in which the teacher had a clear role model to emulate. The delineation of these four factors suggests a clearer emphasis on professional development and advancement through networking for males than for female teachers, a phenomenon noted in business and industry by Nieva and Gutek (1981). It further suggests that female teachers think of the adults in their workplace as filling a variety of roles or providing support at a variety of levels; sort of as "best friends." This agrees with the findings by Stonewater, Eveslage, and Dingerson (1990) which showed that female academics tended to combine personal and work-related support while males differentiated between the two. It also reiterates Gilligan's theory (1982) that females see their personal and professional lives as more intertwined than do males, and their career development more connected to others than would men.

Further, female teachers thought that supportive relationships with others in the school setting, whether current or in the past, had a significant and lasting impact on the way they thought about the support relationships they were currently experiencing. In contrast, male teachers thought that while these relationships had a lasting impact on their career success and mobility, they had little impact on them personally or socially, or on how they performed the daily tasks of teaching. As Gilligan (1982) noted, the women in this study tended to define themselves and their teaching careers in the context of human relationships, maintaining relationships or the tendency to develop support networks across the years of their professional lives. Male teachers tended to be less influenced by relationships with others in the long run. They tended to think about and perhaps to foster support networks related to professional development and success rather than relationships which provide psychosocial or routine work-related benefits. This seems to suggest that while both male and female teachers need support networks, they need and tend to utilize them to different ends.

What does this suggest about mentoring programs in education? These findings suggest that male and female teachers may need different considerations and resources in order to develop professionally and to establish healthy, comprehensive networks in the elementary school workplace. Taken further, it reminds us that "mentoring" or programs aimed at developing support networks within schools may need to be highly individualistic and situation specific. That is, a "cookie cutter" approach to mentoring will be minimally effective. Individualized approaches and program options are essential, even within the same building and district, if we are to pull educators together for the common good.

Issue 3: Informal mentoring occurs is schools whether or not formalized programs exist.

Our research as well as the research from business and industry attest to the importance of support relationships to emotional health and professional effectiveness. Further, our research suggests that an active informal network of support relationships exists in elementary schools whether or not a formalized mentoring program exists (Bainer and Didham, 1995). The results of this quantitative study echo the results of Cole's qualitative work (1991), leading her to raise the question: Why should we make artificial what comes naturally? That is, why invest considerable time and money to formally structure relationships that can and do occur naturally, especially if that formalization inhibits the development of other naturally occurring support relationships? One teacher shared her experience with formal and informal mentoring as follows:

> My first year teaching, I had a mentor, and I can admit that it was a waste of time. Because I was assigned to her, nobody else talked to me. It was an absolutely horrible experience. The second year the significant relationships with other employees that I made were on my own. These happened naturally and to this day we still have a wonderful work relationship/friendship. My mentor from the previous year is someone I don't even talk to now. We never had anything in common from the beginning. Hopefully, administrators can learn to see the significance of teacher support systems, because I almost quit that first year. I'm glad I stuck it out and tried on my own the following year. I know how important those relationships are to the work environment. My co-workers are half the reason I get up in the morning!!

What does this say about mentoring programs in education? As this teacher report suggests, support among teachers many be better encouraged by focusing attention on the school context rather than by adopting a structured program that mandates traditional mentoring relationships. Administrators who direct efforts toward creating a conducive environment in which meaningful interactions can take place might see better results, and at less expense in fiscal and human resources. This includes considering the use of space. Are there places in the building for teachers to interact? Are they comfortable spaces, or do the furnishings send a "stay away" message? Are they accessible, or only available when students and special programs aren't using them? Designation of time is also vital. Can teacher schedules be arranged to provide time for collaborative planning, sharing resources, and just talking about teaching and about themselves? Are professional days full of required meetings and speakers, or is there "down time" for teachers to interact and build relationships? How can extra duty assignments be made to capitalize on teacher professional and personal interactions? What incentives are available to encourage teacher collaboration and problem solving? A more flexible, "user friendly" elementary school setting seems essential to establishing an environment in which the range of support behaviors can naturally develop and flourish.

Support behaviors can also be fostered when teachers focus on a mutual problem or challenge. Such situations stimulate teachers to collaborate toward a common goal. One district experienced this when the state science curriculum was changed. The need to change the district curriculum presented a challenge to teachers, and terrified many of the most experienced teachers. A representative group of teachers took leadership in reworking the curriculum, listening to professional development needs perceived by the teachers, and building a year-long professional development program. The constructivist-based program enabled teachers to identify their own professional goals, and to select from a menu of options to create a personalized professional development program. Subsequent evaluation showed that one of the most valued aspects of the program was that it served as a catalyst for networking among the teachers. Teachers valued the opportunity to talk and process with others located in the next classroom or the next building, thus developing informal networks of support built around a common goal of reforming the science curriculum (Bainer and Wright, in press).

This networking and support, around a common goal of enhancing education, will provide teachers with a strong defense against outside forces. It provides a model of teachers working together and nurturing each other, and practicing valid, research-based educational practice. It has reduced cynicism and fear among the teachers, and drawn teachers into a stronger commitment to good teaching. In addition, it provides personal and professional benefits for the teachers, empowering them to delightfully do their best at educating children in today's troubled classrooms.

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Mentor Accountability: Varying Responses to the New Jersey Provisional Teacher Certification Program and their Implications for Proposed Changes in Wisconsin Licensure

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The State of Wisconsin Department of Public Instruction is currently proposing changes in teacher licensing that will include the creation of distinct license stages for public school teachers (State of Wisconsin Department of Public Instruction 1999). Beginning in the 2004–05 school year, first-year teachers will be appointed at the "initial educator" level and will be required to complete 3–5 years of supported teaching coupled with continued professional development before progressing to the stage of "professional educator" and the subsequent stage of "master educator." Teachers at the initial stage, the state contends, can expect support from a variety of sources: administrators, peers, and, mentors.

The effects of initial professional experiences on beginning teachers are well documented (Hayes and Kilgore, 1991; Shimahara and Sakai, 1995; Zeichner and Gore, 1990). According to Shimahara and Sakai (1995), this socialization period may have the more influence on the beginning teacher than either prior beliefs or teacher education programs:

> Learning to teach is a complex, intersubjective process that occurs in multiple social settings, including the classroom, hallways, the teachers' room, and other formal and informal places... learning to teach is a sustained process of intense engagement in seeking advice from experienced teachers. (p. 123)

Given the potential influence of these initial experiences, mentor programs are warranted. And because Wisconsin's proposed initial educator license will be non-renewable, the mentor's responsibility to the first-year teacher will be great. However, while the value of mentor programs is well-documented (Ganser, Bainer, Bendixen-Noe, Brock, Stinson, Giebelhaus and Runyon, 1998; Anctil, 1991), effective mentor programs are neither effortlessly manufactured nor easily monitored. Will Wisconsin mentors appreciate their responsibilities to the first-year teachers they will advise? And how can this appreciation be monitored? These questions must be addressed before the implementation of Wisconsin's proposed licensure changes. An examination of another state-initiated mentor program may offer some insight.

Recent discussions of proposed licensure reforms for teacher certification in Wisconsin have given me cause to look back at some not-so-recent changes in New Jersey's teacher certification requirements. One such change occurred in the fall of 1995, when the New Jersey Department of Education implemented its Provisional Teacher Certification Program (see State of New Jersey Department of Education, n.d.). A first-year teacher applying for initial certification would no longer be awarded a permanent teaching license. Instead, the first-year teacher would be awarded a Certificate of Eligibility with Advanced Standing (CEAS) license which would authorize the holder to seek employment. Once under contract, the first-year teacher would be awarded a Provisional License and would complete one year of mentored teaching before being issued a standard license. The hiring district was to appoint an "experienced" veteran teacher to act as mentor to the new teacher in a non-evaluative, non-supervisory capacity. The mentor's responsibilities to the new teacher would include bi-weekly observations during the first ten weeks of school and four additional observations during the subsequent twenty weeks. In exchange for providing "training, support, and evaluation," the mentor would receive a $550.00 stipend which was to be deducted from the new teacher's salary over the course of the school year.

Coincidentally, during that same fall semester, I began collecting data for a study of four first-year English teachers and the influences that affected their curricular and instruction decision making. While I had not intended to examine the new mentor program requirement, it did turn out to be an important influence on the decision making of my participants, both in positive and negative respects. The purpose of this article is to explore the various responses that four first-year teachers, Betty, Caroline, Lori, Marie, and their mentors had to one state-mandated mentor program and to consider the implications for Wisconsin's proposed program.

A Brief Description of the Study

Four first-year English teachers were selected to participate in this study. All four were teaching in a suburban schools in northern New Jersey. Betty and Lori were teaching in large high schools; both Caroline and Marie were teaching in middle schools.

Data collection occurred in the teachers' classrooms. During each of eight monthly visits to the four classrooms, I took anthropological field notes; during available periods following my observations, the teachers' and I participated in stimulated recall interviews in which the field notes acted as stimuli for inquiry into the thinking behind the teachers' curricular and instructional decision making. On occasion, our talk turned to the teachers' feelings about the new state-mandated mentor program. Each of the teachers' mentors and/or building level administrators had varying responses to the program. These responses indicated four very different views of mentor accountability and resulted in relative success or failure of the program for the four first-year teacher-participants.

Varying Responses to One Mentor Program

Betty. When considering Betty and her response to the Provisional Teacher Certification Program, it is important to note that participation in the program was, in the fall of 1995, mandatory. Interestingly, Betty did not have a mentor. Aside from myself and two inclusion teachers assigned to two of her classes, Betty, a half-time teacher/half-time yearbook coordinator, did not seem to receive a great deal of support from the other members of the English department, the department supervisor included. During our last visit, Betty asked about the other study participants and how they had fared with their mentors, and she stated that she was not pleased with the lack of support she had suffered:

> Well, it's bad...I don't know how anyone else is, from the people you've talked to, how their first year...you know, the state thing? Where you're supposed to work with a mentor? I really wish my experience would have been a lot more formal, the way it's supposed to be, where you're...you know. I don't even think they took the money out of my paycheck. I would have rather that they had done that and then I would have had the chance to talk to somebody on a regular basis...Sometime it just would have helped to check in and to have caught something before it became a big problem.

For Betty, the Provisional Teacher Certification Program was a complete failure. Operating on a technicality(Betty's half-time teaching load), the district did not provide Betty with a mentor. Her half-time status, however, did not spare her the anxieties experienced by many first-year teachers. By not providing a mentor for her, Betty's building level administrators failed to appreciate the spirit of the Provisional Teacher Certification Program.

Caroline. Because she held a split position (half-time at a middle school and half-time at a high school) Caroline had two mentors. During our first interview, Caroline spoke of the support she received from her department, and she mentioned both mentors by name:

> Ian is my mentor here [at the middle school] and Chris is my mentor at the high school. So I have two mentors and they're both really good and helpful. And they both [are concerned that] they're mentoring and helping.

Throughout the course of the year, however, with one brief exception, Caroline never referred to these mentors nor mentioned any support or guidance she might have received from them. Furthermore, when Ian, Caroline's mentor at the middle school, passed away half-way through the year, Caroline was not assigned a new mentor. It appeared that all involved had abandoned the mentor program. Unlike Betty, who lamented the fact that she did not have a mentor, Caroline appeared to have much in common with the 46% of Anctil's (1991) subjects who reported that a mentor was not necessary, even though they also reported that the quality of mentoring they had received was "very high" (p.7). Although the mentor program was mandatory, and she should have been assigned a mentor, Caroline, apparently, did not see the need for one. The mentor stipend, however, continued to be deducted from Caroline's salary.

Lori. In addition to the support and/or evaluation she received from other teachers in her department, her department chair, and her younger sister, who was also beginning her teaching career that year, Lori, in contrast to Caroline and Betty, received a great deal of support from her mentor, Marty. In fact, Lori often spoke of "Marty-izing" her lessons. Lori's mentor made regular visits to her classroom and offered suggestions to improve her teaching. He also helped Lori navigate the politics of that particular school and provided her with a sounding board off which she could safely vent her frustrations. As Bower (1991) and Weinstein (1988) maintain is often the case with beginning teachers, Lori's expectations conflicted with the reality of teaching.

Marie. Marie's story is a worse-case scenario. Marie had been assigned a mentor; however, as of my last meeting with Marie, she had yet to meet with her mentor other than in passing. She described her first year of teaching as less than rewarding:

> They just throw you (into the classroom). Here's your classes and you're just expected to know what their expectations are of you and the curriculum and the program and all these things...I think that's where the mentor thing was supposed to help. And I guess that if you had it set up the right way, I can't see how it wouldn't be helpful, at the very least! But if it's not set up where you see this person, and she gets the extra prep...I told her [to observe me during her extra prep], but she's never done that. And she tells me "I hear you're doing a good job."

According to Anctil (1991), "mentor accountability" is a critical issue in mentoring and an area that receives too little attention. The inadequate response of Marie's mentor to this assignment, and the resulting alienation suffered by Marie, support this contention. Clearly, Marie's mentor did not perceive the important of her role as mentor to this first-year teacher.

Understanding the Mentor's Role

Hayes and Kilgore (1991) found that new teachers expect support and assistance from veteran teachers and that this support helps new teachers develop a reflective teaching stance. To this end, several states, New Jersey and Wisconsin among them, have instituted or are about to institute mentor programs for first-year teachers. Consistent with these expectations, the apparent level of reflection in which each of my participants engaged was affected by the amount and quality of support she received (or didn't receive)from her mentor (Stinson, 1999). My findings suggest the importance of mentor programs for first-year teachers. My findings also illustrate the varying responses mentors and building-level administrators can and do have to mentor programs and the need to place more emphasis on the importance of the first-year teacher/mentor relationship and the mentor's responsibility for fostering that relationship.

The mentors mentioned here exhibited very different understandings of the mentor role. Betty's building level administrators failed her by not providing her with a mentor. In not appreciating the importance of a mentor for a first-year teacher, they chose to not assign one to her, as if half-time teacher do not have the same fears and concerns about teaching as full-time teachers. In this school, for this first-year teacher, this resulted in an inadequately implemented mentor program.

Lori's official mentor and the other members of her extensive support staff exhibit a strong appreciation of the first-year teacher/mentor relationship and an appreciation of the importance of the support and assistance many new teachers want and need. In contrast, Marie's mentor and those around her failed to appreciate the importance of their roles; thus, they failed to provide this necessary support. These failures resulted in the worst implementation of the Provisional Teacher Certification Program of any school in my study.

Will Wisconsin's mentors appreciate their responsibilities to the first-year teachers they will advise? I believe there are some steps we can take to insure that they do. First, mentors must be selected from among experienced teachers who believe that their influence can have an impact on first-year teachers. Second, potential mentors should attend inservice programs or similar training sessions to heighten their sense of both their responsibility and their scope of influence with regard to their proposed mentees. Third, administrators must make sure that mentors and mentees have common prep periods and otherwise compatible schedules. Fourth, while the level of their participation will be governed by the first-year teachers themselves, mentor programs must be made available to all first-year teachers. Finally, to insure that the mentor programs are being effective, administrators must be aware of the levels of support being offered in their schools through continued inservice experiences for mentors and mentees.

Mentor programs are not necessary for everyone. Certainly Caroline survived, even flourished, without extensive mentoring. More than likely, Lori would have sought out her own support system even without the guidance of her mentor. However, for first-year teachers like Betty and Marie, first-year teachers who need and want such support in the form of formal mentor programs, properly implemented mentor programs administered by trained individuals who thoroughly understand their roles as mentors are critical to first year teaching success.

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Leading the Way . . . State Initiatives and Mentoring

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Since the early 1830s, a debate has raged across the United States concerning how we should prepare teachers. It began when Horace Mann first declared that teachers required special preparation (Cruickshank, et. al, 1996). But not everyone agreed then, just as not all agree now. Even those who agreed, did not agree to the form the preparation should take: the amount and type of preparation. There are those who believe that a strong academic background in the subjects they will teach is all that is necessary; others contend that there is a specialized knowledge-base that informs best pedagogical practice that teachers need to know and be able to do; and still others argue for both. In recent years, there have also been those who insist not only that is there specialized pedagogical knowledge and skills, but that it is different based on the developmental and cognitive levels of the children. The challenge for those responsible for the preparation of America's teachers is to make informed decisions given the abundant rhetoric and vociferous debate. What do teachers need to know and be able to do? Who should inform such preparation? By whom and how should such preparation "standards" be developed, implemented, and enforced?

The reform rhetoric surrounding teacher preparation has been symbolic of the 1980s and 90s. It appears that almost every agency, professional organization, and group of academicians has called for some type of teacher preparation reform. The sources of the rhetoric include private foundations, interested individuals, university teacher education units, teacher associations (both at K–12 and higher education), academic learned societies, and federal and state governments. Some of these proposals were intended to address perceived failures in the actual preparation of teachers, others looked to address scientific/technological, economic, and societal demands placed on schools. Some plead for extending the preparation period, while others suggest less control or elimination of formalized teacher preparation all together. Amid all the reform rhetoric, little attention has been given to establishing standards for ensuring that the preparation that does occur produces teachers that have the knowledge and skill to be successful practitioners once they enter their own classroom. Nor has there been much attention given to the use of assessment of the knowledge and skill to make decisions about entry and retention in the profession.

Historically, the preparation of teachers has been the exclusive domain of teacher education institutions, both preservice education and professional development. States have made certification requirements for continuing education, but rarely has there been any "official" notice of what a beginning teacher needs in order to be successful during that first year of full time teaching. That is until recently. A developing trend in teacher education reform is that states are mandating certification/licensure requirements for teacher preparation, along with induction year programs as part of teacher preparation or licensure. With these state initiatives, three primary issues, problems and concerns have surfaced:

1. A lack of consistency in the definition of what constitutes mentoring and support among the stakeholders both between states and within the states;
2. A need for the development of appropriate and effective models for mentoring; and
3. A need for adequate funding to develop, initiate and sustain an effective mentoring program.

These issues, problems, and concerns are faced by every state and the local school districts that hire beginning teachers. States that mandate beginning teacher support programs must address these concerns if they are going to meet the needs of our beginning teachers and ultimately, the children they teach.

Defining Mentoring

What is mentoring? Is a mentor a "buddy" or is the person recognized for his expertise as a teacher and leader within the professional community? Will we provide such support to all first year teachers within a building, or only to those who are first year within the profession? Will some beginning teachers be exempted and under what conditions? How will mentors be selected? What support will mentors be given to facilitate the fulfillment of their role? Without clear definition of what constitutes a good mentoring program, state policy may not meet the expectations and needs of the beginning teacher.

There is wide variation in how the term mentoring is used and in the programs that are offered. Clearly, mentoring means different things to different stakeholders. Bendixen-Noe and Giebelhaus (1997) discussed the origin of the term from the classic poem *The Odyssey* by Homer and defining characteristics of mentoring. From this epic poem, the characteristics of mentoring emerge as a more experienced, wiser person entrusted with the growth and development of a younger, less experienced person—a novice. It is a relationship between two individual where the mentor educates and advises the novice as he progresses through life. The expectation for the noviceis to respect and learn from the care of the more experienced mentor.

From this earliest description in Greek mythology, mentors and mentoring have been described in many ways: nonparental career model, role model, professional facilitator, advisor, counselor, teacher. Alleman, Cochran, Doverspike and Newman (1980) defined mentoring as "a relationship in which a person of greater rank or expertise teaches, guides, and develops a novice" (p. 329). Schmidt and Wolfe (1980) listed three broad categories as functions of mentoring including role model, consultant-advisor, and sponsor. Schein (1978) suggested eight mentor roles: teacher, confident, sponsor, opener of doors, role model, developer of talent, protector, and successful leader. As states look to mandates for entry-year mentoring support, they too have established definitions to guide policy implementation. Ohio's entry-year standards define mentoring as "a program of support provided by a school district . . . to meet the unique needs of an individual in the first year of employment . . ." and a mentor as "a person assigned to an individual in the first year of employment under a classroom teaching certificate or an educational personnel certificate." (Administrative Code, Rule 3301-22-02)

Establishing formal programs to assist entry persons into a profession by using more experienced employees was introduced into the world of business and government in the 1970s (Bendixen-Noe and Giebelhaus, 1997). Gold (1996) and Tellez (1992) state that attempts to establish such programs in schools, colleges and universities, and states in an effort to help new teachers as they entered the profession began in the 1980s.

As states grapple for direction, they often look to each other; however, with regard to mentoring, state initiatives that extend teacher preparation into the first year of teaching vary in terms of both procedures and processes. The National Association of State Directors of Teacher Education (NASDTEC), notes the variation in programs across states in the 1996-1997 NASDTEC *Manual*. Of the just 28 states noted in the *Manual* as having mentoring programs or Beginning Teacher Support Systems (BTSS), only 15 require all beginning teachers to participate in the programs. Most state initiatives included some sort of training for the beginning teacher (20), but only 16 states have allocated additional funding to support beginning teacher mentoring programs. In addition, there is little mention of mentor selection and/or training and few of the states involve the teacher preparation institutions in the support system for beginning teachers. Finally, the policies regarding the evaluation of mentoring programs and those which extend support beyond the first year vary greatly from state to state. Without clear focus of what constitutes effective mentoring, that is models, there is little wonder why inconsistency and lack of focus may occur in mentoring programs.

Mentoring Models

The need to develop models, therefore, which can provide consistency and focus to the development of local mentoring programs is warranted. These models should include: a framework for selection and training of mentors; opportunities for mentors and their protégé to work together —including opportunities for direct observations of teaching; opportunities for beginning teachers to participate in on-going professional development; and guidelines for assessment and evaluation of the mentoring program.

The selection of mentors is critical to the success of any mentoring model. The role of mentor implies that the experienced teacher selected will be not only a highly competent teacher that understands pedagogy and has extensive content knowledge, but one who has the desire and ability to nurture others. Not all experienced teachers possess these traits. Therefore, it is important for mentoring programs to have guidelines for selection that address the characteristics valued in mentors. Enz (1992) four considerations that should be examined as a district develops criteria for selection of mentors: personal characteristics, professional skills, functional concerns, and practical concerns. Personal characteristics include such attributes as thoughtfulness (reflectivity), facilitativeness, and integrity. Professional skills incorporate pedagogical and communicative skills. A mentor should "possess current professional knowledge and demonstrate a high degree of instructional expertise, such as the understanding of their students' social, physical and emotional development, mastery of curriculum, content, and instructional pedagogy" (p. 67). Further, functional and practical concerns must be considered if the mentoring program is to succeed. Functionally, mentors must view themselves as more than "buddies"; effective mentoring requires that mentors not only possess expertise in teaching, but have knowledge of teacher development, beginning teacher problems, adult development and the skills associated with recognizing effective teaching, and conducting observations/supervision (O'Dell, 1987). Finally there are practical issues that should be addressed. For example, teaching assignments should be considered. Huffman and Leak (1986) note that matching grade and/or content specialty maximizes the mentor's opportunity to use the knowledge and skill attributes and increases the likelihood that the protégé will benefit from such expertise. In addition a mentor should not only have the time to provide quality mentoring, but should be close enough in proximity (e.g. same school) to allow opportunities to interact with the beginning teacher.

Once the selection criteria has been established, effective mentoring programs provide training for the development of good mentors. Although recognized as highly competent and effective teachers, prospective mentors may not have a framework of how to talk about teaching and learning in a logical, systematic way. Providing such a framework enhances the communication and interaction between mentor and protégé. In Ohio, where mentoring of all entry-year teachers is mandated, the 1996 Teacher Education and Licensure Standards (Administrative Code 3301-24) state that mentors "will offer the support necessary to successfully transition into 'real world,' full-time classroom challenges" (p. 3) with no mention of how this should be accomplished. This process is left up to each school district to determine even though what districts do with regard to mentoring - or do not do - may impact how well beginning teachers are prepared for the state's performance-based assessment for licensure. Recent research (Giebelhaus and Bowman, 1997, 1999; Giebelhaus, Bendixen-Noe, and Nichelson, 1999) indicates that training of mentors does increase the effectiveness of mentoring with regard to the demonstration of identified effective teaching behaviors. Training can provide focused interaction vital if mentoring programs are to achieve the ultimate goal - providing competent teachers for every child.

Mentoring also requires time for both mentor and protégé. It is impossible for a mentor with his/her own classroom responsibilities to find the time to establish a relationship with a beginning teacher, much less to conduct observations and give feedback, without some form of "time" support from the administration. Support for the development of such relationships is critical in the success of mentoring programs. School district administrators cannot assume that by naming a mentor, mentoring will occur. Sufficient support includes proximity of mentor to protégé and time for interactions, both formal and informal.

Just as mentors require initial training in their role and the associated skills, continuing professional development of the beginning teacher through in-service training is another aspect of mentoring programs that should be considered. These activities can be informal workshops and seminars where beginning teachers meet with each others and with their mentors to address specific issues, problems, or concerns. Incentives for additional "formal" training can also be established for beginning teachers to extend their knowledge and skills through additional university course work.

And finally, models of mentoring programs should include a means for gathering information to assess and evaluate the effectiveness of the program. Such data could come from a variety of sources including teacher (administrator, mentor and protégé) surveys, retention rates, student surveys and/or achievement information, and participation data. Information should be gathered and analyzed in order to determine whether the needs of the state, district, school and individuals are being met.

If models of effective mentoring programs are to be developed based on state initiative and regulations, the state must support and encourage that process. Expectation need to be clear. Resources and technical assistance must be available. Providing leadership by offering various ways in which mentoring programs can be developed is critical. Finally, when state policy requires school districts to implement mandates, it must disseminate information about the models that work. Once the policy has been established, the role of the state is to assist districts as they attempt to negotiate the unfamiliar territory.

Funding

Perhaps the most critical issue facing states is that of funding generally. When it comes to mandated initiatives, the term "unfunded mandate" sends chills down the spine of district boards of education and superintendents. The requirement to implement mandated mentoring for induction year programs is just one more item—one more mandate—that demands a "slice" of the district's fiscal pie. For states then, the questions are, "Where do the funds come from?", "How do we disburse funds equitably to all school districts?" and "How much and to whom is the funding given?" It is obvious that to train mentors, to provide them with time to work with new teachers and to collect information and disseminate the results . . . all of this takes money. States send a clear message to local school districts regarding the importance of mentoring programs by the amount and kinds of funds that are allocated.

Some states have initiated the "unfunded mandate", which guarantees uneven compliance or in many cases noncompliance! Other states have adopted the system of competitive grants. Again, there is an enormous opening for uneven compliance and unequal opportunity. If a mentoring and support system for beginning teachers is mandated, then the funding should accompany the law. The manner in which the funding is dispersed is not as important as the fact that money is available to support model building and implement the requirements established within the state policy decision.

In at least one state, Ohio, where the mandate was first initiated as an "unfunded mandate" for most school districts in the late 1980s, it has since become part of the Teacher Education and Licensure Standards (1996). Funding has been provided through grants, both federal and state. In the grant proposal requirements, local school districts and institutions of higher education have been encouraged to work together to establish mentoring networks. The state has developed and adopted a framework for mentor training which includes identification of and discussion around specific effective teaching behaviors. Although each local school district develops their own model for mentoring meeting their unique needs, all are linked to the performance-based licensing requirements for new teachers. Because the funding is currently limited to those who successful apply for grants, funding in Ohio to meet the mandated requirement for mentoring of beginning teachers is unequal. Will this impact the success of beginning teachers on the mandated performance-based assessment for licensure?

Recent studies (Giebelhaus and Bowman, 1997, 1999; Giebelhaus, Bendixen-Noe, and Nichelson, 1999) suggest that it very well may. In a quasi-experimental study of student teachers and their mentors, Giebelhaus and Bowman (1997, 1999) found that student teachers whose mentor (cooperating teacher) were trained in a common framework for discussing teaching and learning—Pathwise (ETS, 1995)—demonstrated more effective teaching behaviors than those whose mentor had no such training. Findings from a causal comparative study by Giebelhaus, Bendixen-Noe and Nichelson (1999) reveal that entry year teachers whose mentors were trained and who used specific strategies like observation and conferencing around a framework of specific teaching skills were more successful than those who did not have such mentoring opportunities.

These studies would suggest that quality and type of mentoring program within a district may be a factor that prospective teachers should discuss and consider as they decide where to teach, especially where "high stakes" performance assessments for licensure are in place, such as Ohio.

Conclusions

For states trying to establish and implement high standards for teacher preparation and professional development through initiatives like mandated beginning teacher support programs, the on-going challenge is to engage the stakeholders while maintaining consistent standards for each. With regard to mentoring, stakeholders include not just beginning teachers and the children they teach, but the school districts that hire them and the colleges and universities that prepare them. Mentoring, although well supported in the literature as likely to produce more effective practitioners, is a change from the norm; change is a challenge to some, but to others it is difficult and threatening. State agency representatives who are charged with the implementation of such policies must have the fortitude to stand fast and maintaining consistency in order to provide opportunities for such mandates to reach their full potential. In Ohio, the state has implemented a statewide program for training mentors to work with beginning teachers. The state has also developed a source of funding such programs. The challenge for any state, including Ohio, once it has begun the journey down the long road of successful implementation of initiatives which force change, is maintaining the momentum of change without veering off the road.

Linda Darling-Hammond (1996) stated that the lack of effective mentoring is one of the barriers to having competent teachers for every child. If this is true, and there is increasing evidence to support this, then it is imperative that states take the leadership role in developing, ensuring, and maintaining comprehensive, systematic mentoring and support programs for all beginning teachers. If successful, the journey towards effective mentoring programs for beginning teachers will reach far beyond tomorrow . . . it is a journey that should strengthen the profession and ensure competent teachers for every child.

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Mentoring: Aim and Assess

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Today was just like any other day for Cinderella at the swimming hole. Just like all the other days, she would continue to swim the murky waters alone, perfecting her strokes in hopes of reaching the distant shore. Unlike a host of other swimmers, she had to swim the deepest parts of the lake for Cinderella was new, and the more experienced swimmers knew the hardships of the deep water currents. They took up the shallow areas near the shore. She would learn just like everyone else—to sink or swim by handling the roughest waters. Thus it is for too many of America's beginning teachers. Just like our imaginary Cinderella learning to swim alone in the roughest waters, too many of our beginning teachers are learning to teach in isolation of placed in climates not conducive to developing effective teaching skills.

Though a number of states and local school systems have developed induction programs of one sort or another, there are still too many of our best and brightest beginning teachers leaving the profession. Too many are still learning to swim on their own; too many are still being evaluated and offered remedial help with little concern for the expressed needs of the situation or the individual's unique attributes. Too many programs are simply an orientation program to indoctrinate or simply another layer of evaluation, a deficit model which sees the beginning teacher as one who lacks specific skills and its role is thus to correct any specific problem areas.

Today, it is more important than ever to promote comprehensive, developmental induction programs which concentrate not only on orientation and development of strengths but on the situational, personal and professional concerns of our beginning teachers. Our beginning teachers need more than a dose of standardized pedagogy and evaluation of their mastery of the "golden rule". Our programs need to develop personal strengths and ideas to change education for the better, not stifling the creativity and idealism of first year teachers by legislating dependency on accepted methods and materials. It is time to take aim at programs that dignify, humanize and develop professional personnel who strive to master the art of teaching.

So what can be done to make the waters calmer for our Cinderellas? What restructuring of the swimming hole is possible that will allow Cinderella to perfect her strokes and swim the waters of today's classroom? Perhaps the single most important answer rests with fellow swimmers designated as mentors. One who plays a number of roles over time, roles such as a trusted guide, advisor, model, supporter, protector, challenger, opener of doors, confidant, and/or simple colleague. One who can facilitate growth in another by being positive, trustworthy, accepting, non-threatening, and caring. One who can communicate unambiguously and allow another his/her own separateness. Perhaps it is the mentor who truly holds the key to the beginner's swim to shore. As with any educational program, basic questions come to mind when examining use of mentors in induction programs.

1. What should be the primary aims of a mentoring program?
2. How should mentoring programs be evaluated?
3. What are the characteristics of an effective mentoring program?
4. Who should be in charge of deciding?

These questions offer an argumentative framework for viewing various mentoring efforts and for analysis of issues associated with the diversity of programs. Answering and exploring the gray areas provides an avenue for defining the critical issues. Using this perspective, two critical elements in teacher mentoring and induction programs emerge - what should be the primary aims and how should the program be evaluated? From answering these two questions, the other questions are resolved.

Take Aim

First, mentoring programs need to take clear aim at how they will interact with the early career teacher. In examining the diversity in programs goals, most mentoring efforts can be divided into either evaluative (where the mentor is part of the evaluative process for retention or certification) or developmental (where the mentor has no authority to evaluate but assists in the teacher's development based on situational needs). Because first-year teachers have different personality needs and behavioral tendencies which are illustrated in such factors as gender, marital status, age, parenthood, educational level, school placement, and other such factors and because each is placed in different school climates, it is apparent that for mentoring programs to be effective they will have to offer individualization and diversity through meeting both personal and professional needs. Following this logic, potent programs would base most of their interaction on meeting the situational personal and professional needs as perceived by the beginning teacher and not only on outside evaluation deficits derived from mentor observations.

As with any effective program, whether developmental or deficit oriented, the specific aims should be derived from a clear philosophical orientation and research oriented rationale. Though different induction programs delineate their goals in various fashions, effective programs contain part or all of the following aims. Clearly focused, effective programs typically:

1. Have a fundamental philosophy which recognizes the beginning teacher as one who has a set of skills and needs, and as a result of the program:
    a. Develops, extends, modifies, or refines these skills;
    b. Orients the beginning teacher to the school system; and
    c. Addresses and meets the perceived personal and professional needs of the teacher.
2. Have a well defined set of rationales and goals.
3. Provide continuous year-long support from the preschool orientation to third-year tenure through various organized support systems.
4. Use various personnel to offer a vast array of materials, instruments, and activities to personalize each beginning teacher's year.
5. Have mentors selected, trained and focused using current knowledge available about the beginning teacher.
6. Provide frequent support interaction and targeted topics to help the beginning teacher in adjusting, expressing needs, and developing.
7. Offer a large number of instructional and non-instructional areas on which the beginning teacher could focus when the need surfaces;
8. Not interfere with the school evaluation system but allow for the program to provide an improvement system for any weaknesses found in the formal evaluation.
9. Be able to show positive growth from the beginning teacher's own perceptions of skills and knowledge as well as other qualitative and quantitative data.

From this set of aspirations, influential mentoring programs take aim and develop mentors who can effectively accompany our Cinderella across the swimming hole. Through the program, they understand their roles as a swim coach and can personally facilitate the development of the Cinderella's swim strokes, realizing they can't swim every stroke at once. They have been trained and can help the Cinderella cope with the waves that throw her off course.

Because of the importance of continuous daily support through mentor activity, an effort is made by effective programs to train the participating mentors in specific interaction skills and research-based activities which could be effectively used with the beginning teacher. To help effective programs take aim, specific goals are usually established for mentor proficiency. For the training to be successful, the mentor should be able to:

1. Conceptualize the general characteristics, needs, concerns, and expectations of the beginning teacher;
2. Understand the components of developmental beginning teacher induction programs;
3. Interact and communicate with the beginning teacher in a non-threatening, supportive manner;
4. Assess and interpret specific classroom needs and problems of the beginning teacher using checklists, assessment instruments, and personal conferences;
5. Analyze, focus, and support specific teacher classroom needs using peer coaching techniques and conferencing;
6. Use data collection instruments in observing class activities to focus classroom observations;
7. Incorporate the personal, professional, and personality needs of the beginning teacher into activities and interaction;
8. Implement developmental activities that will offer the beginning teacher additional knowledge, skills, and attitudes for successful teaching performance; and
9. Serve effectively as a developmental mentor who can provide an orderly, personalized transition from preservice preparation to the first three years of teaching.

In essence, mentors should aim to be more than simple colleagues who occasionally help the beginning swimmer through the nuances of the American educational waters.

Assess

Next, mentoring programs need to clearly assess how well they fostered the development of the early career teacher. In examining this area of how mentoring programs should be evaluated, convincing programs offer both quantitative and qualitative data to illustrate to what extent its aims and aspirations were met. In order to assess, modify, and refine programs, it is important to construct an evaluation system which is multifaceted. Questionnaire responses and perception differences from both beginning teachers, mentors, and principals could be used to assess the program subjectively. Retention rates, teaching performance standard compliance, student performance, portfolio documentation, and quantitative positive growth from the beginning teacher's own perception of skills and knowledge could be used to show statistical data.

One of the most promising avenues for evaluating mentoring programs involves using the theoretical framework that each teacher is in a state of becoming and each tends to move through defined stages from a survival mentality to making an impact on every child. Numerous researchers have examined developmental stage differences of beginning teachers from different angle (Fuller and Bown, 1975; Hall and Jones, 1976; Pataniczek, 1978; Hunt and Michael, 1985; Cruickshank and Callahan, 1983; Hitz and Roper, 1986; and Smith and Sanche, 1993). However, one of the most promising examples of using a developmental stage framework to assess program effectiveness can be found in the Kansas Early Career Teacher Development program. This program is a continuous teacher training partnership between Pittsburgh State, Emporia State, Southeast Education Service Center, and 68 school districts in Kansas. Through its evaluation instrument, the *Teacher Needs Assessment Questionnaire (TNAQ)*, the program for early career teachers is capable of identifying developmental stages and illustrating group and individual movement from one stage to another.

Evolving from seven years of research and six statistical studies with over 700 teachers of various years of experience, the *Teacher Needs Assessment Questionnaire* was developed and a three stage theoretical base crystallized (Runyan, Sparks, Lipka, et. al., 1993, 1994, 1995, 1996, 1997, 1998). Designed to measure specific instructional and professional needs by examining the teacher's own perception of importance, mastery, and desire to improve on 49 given statements, the instrument numerically derives a Need/Desire (N/D) score which is used to establish individual need priorities. The researchers took the position that to establish a need there should be a perception that it is important, that it is not presently being done well, and there is an aspiration to improve. These need/desire scores could then be ranked and prioritized to help set target areas as well as track development through stages.

To trace progression, the program collects data on the beginning teachers development three times a year using the *TNAQ*. Using as a foundation the Fuller and Bown (1975) stages of survival, mastery, and impact, the instrument statistically uses the 49 items to show quantitative professional progression for early career teachers through three stages—Establishing Structures (Survival), Developing the Science of Teaching (Mastery), and Cultivating the Art of Teaching (Impact). In essence, by using a theoretical stage framework, the program strives to move each teacher from a survival mentality to making an impact on every child. These stages and their characteristics are:

Establishing Structures

- Acquiring supplies and establishing room layout
- Knowing school policies, norms and culture
- Building staff relationships
- Establishing classroom procedures and routines
- Setting rules and reinforcing them to gain respect of students
- Expanding subject matter knowledge
- Planning lessons for high time on task
- Coping with evaluation, other's opinions, and fear of failure

Knowing parents and opening lines of communication

Developing the Science of Teaching

- Using various models of teaching correctly
- Acquiring innovative techniques, activities, and ideas
- Asking classroom questions effectively and providing review and practice
- Providing timely assignment feedback and furnishing justification for grades
- Giving clear directions, illustrations, and transitions so classroom activities move smoothly
- Identifying learning styles, characteristics, and needs of class
- Providing sponge activities to keep students busy
- Managing time pressures

Developing the Art of Teaching

- Being novel, vivid, and varied in teaching strategies
- Achieving equity in monitoring, questioning and feedback
- Showing high expectations for every student and motivating all students to succeed
- Striving to meet the individual academic, emotional and social needs of students
- Developing consistency in enthusiasm, fairness and humorous disposition
- Being a role model who shows empathy, warmth, and respect to each student

By using the beginning teacher's own perceptions of need at various times throughout a three-year period and tracking the data, a program can illustrate each teacher's movement through developmental stages. This kind of developmental orientation holds great promise for inspiring mentoring programs to assess their performance and provide focus towards an end result.

So what can be done to make the waters calmer for our Cinderellas? One answer is to aim and assess developmentally. Programs must understand that not all Cinderellas dress the same or swim in the same pond; they don't all react to the same currents in the same manner. But because they are all swimmers they ten to learn the strokes in like manner, some taking more time than others, all hoping to have an impact on every child. By providing a needs-based developmental environment where there is positive, targeted, nonthreatening mentor interaction, and by grounding much of its evaluation on the quantitative and qualitative perceptions of the beginning teacher as they are perceived in a state of development, a mentoring program has a good chance of penetrating the isolation so destructive in beginning a career and developing master swimmers who have the capacity to make a difference with every child.

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A Letter from the President Regarding MWERA and the 21st Century

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The Mid-Western Educational Research Association has had a stellar history, but its future looks very bright too. Yes, for nearly a quarter of a century MWERA has been a home for researchers, scholars, professors, teachers, and administrators. During this period of time, collaborations have developed, research has been shared, and good times have been had by all. As the current president of MWERA, it is obvious to me that these benefits will continue well into the next century because we're not just fellow researchers, teachers, and administrators, etc., from around the midwest and the nation, but we're all very good friends too. Truly, it has been said that the only thing better than aged steaks is ol' friends, and it's upon that foundation, i.e., friendship, that the Mid-Western Educational Research Association—and its members—will continue to grow together well into the next century, and perhaps long after that! So may we always look forward to the next meeting, hoping that it will be as good as the ones we've had, but we must keep in mind, however, that what really makes MWERA so great are our many positive interacitons, and all the fun we've had, as well as the full realization that the best really is yet to come and that MWERA is not a fad.

The Principals' Role in Mentor Programs

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Rick, an experienced elementary principal, was concerned about the failure rate of the beginning teachers in his school. When he initiated the mentor program this year, he was confident that he had solved the problem and that the outcome would be positive. Now he was shocked by the beginning teachers' evaluations.

> "My mentor gave me great suggestions, but I would like to hear the principal's views on what he considers good teaching and appropriate discipline. He is the person who will evaluate me and I want to know if I am doing OK."
>
> "My mentor told me that the principal wasn't pleased with the noise level in my room. I feel uncomfortable that they are discussing me. I wish the principal would speak directly to me instead of telling my mentor."
>
> "I wish my mentor would meet with me regularly. She tells me to see her if need something, but I feel like a bother when I go to her with a problem."

Rick, like many principals, recognized the need for beginning teacher induction and assumed that the solution to the problem rested solely with the assignment of mentors. He randomly assigned experienced teachers as mentors without providing guidelines, training, or support for them. To compound matters, Rick assumed that the mentors would "handle things" and he ceased interacting with the first-year teachers.

The problems that Rick experienced are commonplace in many schools. Busy principals, grasping at solutions to assist their beginning teachers, randomly assign experienced teachers as mentors. Confident that they have solved the problem, the principals move on to other tasks, leaving the mentors solely responsible for inducting the beginning teachers (Brock and Grady, 1997; Brock and Grady, 1998). The mentors struggle, achieving varying levels of success, and the beginning teachers wonder why their principal doesn't interact with them. As one beginning teacher reported, "My principal welcomed me to the building and assigned me to a mentor. Now I don't ever have an opportunity to talk with her."

Initiating a Program

Principals play a key role in inducting beginning teachers into their schools (Hughes, 1994; Lieberman and Miller, 1994). One of the most effective induction methods is a developmental teacher induction program that includes a mentor program. The mentor component is an organized and systematic process in which a skilled and experienced teacher provides guidance to a novice (Heller and Sindler, 1991).

The role of the principal in the mentor program is to lead the initiative for program development, provide ongoing monitoring, and evaluate program effectiveness. Steps in program development include: 1) conducting a needs assessment to determine a rationale for the program, 2) evaluating the availability of funding and resources, and 3) determining if the school community will support the program. To be effective, a mentor program requires the commitment of the entire faculty and a supportive school atmosphere (Brock and Grady, 1997).

Once a decision is made to create a program, the principal guides the development of goals that tailor the program to the specific school setting. These goals provide the framework for the program (O'Dell, 1989). The next steps include: a) defining the needs of the beginning teachers, b) establishing criteria for selection of mentors, c) defining mentors' roles, and d) determining the length of mentors' service and commitment (Heller and Sindler, 1991).

Defining the Needs of Beginning Teachers

Commonly thought of as new college graduates, beginning teachers are actually a diverse group. Some beginning teachers are simultaneously embarking on adulthood and a professional teaching career. Others are mature adults who recently completed teacher training, or are re-entering the profession after raising a family. Some beginners may be experts in a discipline but have had no teacher training (Brock and Grady, 1997).

Given the diversity of beginning teachers, the content and process of mentoring need to adapt to their specific circumstances (Brock and Grady, 1997; Brock and Grady, 1998). A needs assessment before school begins and repeated periodically throughout the year will allow the principal to structure a program that is responsive to the needs of the beginning teachers. Mentors will understand and be able to respond to the more specific needs of their mentees. If the mentor program is well designed, it has the potential to be responsive to individual needs and deliver continuing professional development throughout the first years of an individual's professional experience.

Selection of Mentors

The ability of the mentors is a critical component of a mentor program. However, the mentors in many schools are randomly selected. In some schools, the mentor teacher's personality, similarity of teaching assignments, or proximity to the newcomer's classroom is the sole determinate of mentor assignments. Although this method occasionally produces desired outcomes, a more structured approach is more likely to yield consistent success (Brock and Grady, 1997).

A quality mentor program provides specific criteria for selection of mentors. Principals determine criteria that are based on the goals of the school and the program. Suggestions for criteria include: a) experiences appropriate to the teacher's assignment, b) pre-requisite knowledge, skills, attitudes, and values and c) familiarity with the school and district's policies, procedures, organizational structure, curriculum, courses of study, and competencies (Gordon, 1990; Haipt, 1990).

Obviously, the mentor should be considered an expert teacher who has exceptional abilities in relating and communicating with other adults. A mistake, commonly made by principals, is assuming that an individual who works well with children will relate well with an adult in a mentoring situation. Mentors who work with adults have exceptional listening skills, are able to define a problem, generate alternative solutions, and work with a novice to select, implement, and evaluate a course of action. Most important, good mentors are able to offer suggestions and possibilities without encroaching on and diminishing the confidence and decisions of the novice teacher (Feinman-Nemser and Parker, 1990).

Practical considerations for mentor selection include proximity of classrooms, similar grade levels or course assignments, shared planning periods, philosophies and teaching styles. Gender, age, personalities, and interests are variables to consider for compatibility. Criteria should also take into account the respect of the mentor by peers, commitment to the teaching profession, desire to work with a novice, and willingness to spend the time and energy required (Brock and Grady, 1997).

Defining Mentors' Roles

Mentors need to know the intended goals for the mentor program and their role in attaining those goals. A mentor may serve in a variety of roles, such as role model, sponsor, teacher, coach, encourager, nurturer, and friend. Usually it is assumed that the mentor's role is to assist a less-experienced person for the purpose of promoting the novice's professional development. Whatever the specific function of the mentor program, program goals and the role expectation for mentors must be clearly stated and with plans established for their attainment (Janas, 1996; Heller and Sindelar, 1991).

Along with role expectations, the duration of the mentor relationship should be defined. Formal mentor periods usually extend for one or two years. However, if a friendship or strong personal bond develops, informal mentoring may continue for several years (Janas, 1996; Heller and Sindelar, 1991).

A typical scenario is the pairing of a master teacher with an inexperienced teacher for the purpose of socializing the newcomer into the school. Usually this formal induction process lasts for one year or throughout the probationary period of the school district. Ideally, a positive relationship develops between mentor and novice during the formal mentoring period. When this occurs, informal mentoring and professional collaboration often continue long after the formal process ends.

A committee composed of faculty plus the principal should determine the roles of the mentors. If possible, input from novice teachers should be included. These roles will likely be re-visited and re-vised throughout the mentor program as mentors and new teachers evaluate their effectiveness (Heller and Sindelar, 1991).

Training for Mentors

Training, although seldom provided by schools, is equally as important as mentor selection (Brock and Grady, 1997; Brock and Grady, 1998). Mentors need orientation to familiarize them with the mentor program and then ongoing sessions to update skill (Janis, 1996). The orientation could occur during a one-day training period of four or five hours prior to the opening of the academic year (Heller and Sindelar, 1991). Subsequent sessions should be scheduled throughout the year to provide opportunities for skill development. Time should be provided for mentors to discuss their roles and obtain feedback from others.

The process and substance of the training should be determined by the goals of the mentor program and the school context within which it operates (Heller and Sindelar, 1991). A good starting point is a mentoring handbook that includes topics, such as: the purpose of the program, suggested roles of the mentor, guidelines for classroom visits, and summaries of the school's discipline, due process, and attendance policies and procedures (Heller and Sindelar, 1991). If mentors are expected to perform classroom observations and share insights with novice teachers, they need to be taught these techniques. Training should be provided that includes skills in pre-conferencing, classroom observation techniques, data collection and interpretation, diagnostic strategies, effective questioning, reflective listening, and post-conferencing (Brock and Grady, 1997). To facilitate smooth relationships between novice and mentor, skills in conflict resolution should be included (Janis, 1996).

Principal's Involvement

The principal needs to initiate the mentor program by meeting with the new teachers and mentors to clarify expectations for the program, the working relationship of participants, and the non-evaluative role of the mentor. Throughout the process, principals should monitor the interactions of teachers and mentors without breaching the confidentiality required in the mentor-mentee relationship. If relationships between teacher and mentor prove unsatisfactory, the principal should quickly provide an alternative mentor (Fischer, 1997). Some principals meet regularly with mentors to discuss issues that need to be resolved and solicit suggestions for program improvements (Heller and Sindelar, 1991).

Principal's Interactions

Mentors provide assistance but are not a substitute for beginning teachers' need to interact with the principal. Beginning teachers identify the principal as a key figure in their assistance and support. The principal is the person likely responsible for them being hired and the individual who will evaluate their teaching. Thus, beginning teachers want and deserve feedback from the principal. When this support and affirmation isn't received, beginners feel abandoned and frustrated. Novice teachers need assistance from both principals and mentors. Each provides unique perspectives, with the mentors' work complementing that of the principal. (Brock and Grady, 1997; Brock and Grady, 1997).

The area most elusive to beginning teachers is the school's culture. Culture constitutes the routine behaviors defined by the unwritten rules and norms developed over the years of the school's existence (Brock and Grady, 1997). When teachers say, "It's the way we do things around here," they are referring to school culture. As new teachers join the school, their views are shaped by and in turn perpetuate the culture (Hanson, 1996).

Beginning teachers often have trouble understanding the school's culture because it is unwritten and thus elusive. They can find answers to explicit rules and procedures in handbooks. However, it's the maze of unwritten rules that are more likely to govern what people do than the written policies and procedures. Teachers are more likely to teach according to the prescribed norms of the school than any directives from the administration. These are the "rules" that aren't written down anywhere that pose problems for beginning teachers. So ingrained are the rules, that even well-meaning mentors and veteran teachers don't think to share them (Brock and Grady, 1997; Sergiovanni, 1994).

As developer and nurturer of the school's culture, the principal plays a pivotal role in sharing that culture with beginning teachers. The perceptions of the social and cultural factors of a school have a greater influence on novices than the schools formally-stated goals. Beginning teachers need to know the school's history, traditions, legends, and myths. They need to hear the stories of the school's heroes and heroines. This process helps the novice gain a sense of membership and participation in the culture (Brock and Grady, 1998).

In addition, new teachers want to know the principal's goals and expectations for teaching. While the mentor's classroom experiences are valuable, knowing the principal's expectations for instructional methods, time management, discipline, grading, student achievement, and parent relationships is essential. Sharing examples of accepted ways of doing things provides examples of acceptable standards of behavior. Although beginning teachers need and appreciate the assistance of mentors, the principal is the person they need please, who will likely evaluate them (Brock and Grady, 1996).

Evaluations and Confidences

Careful consideration must be given to whether or not the mentor is to have a formal role in the evaluation of novice teachers. If mentors are to have a role in formal evaluation, the procedures must be an established part of school policy and clearly defined and explained to mentors and mentees. With trust being an integral component of a successful mentor program, it is essential that principals adhere to existing evaluation policy, are mindful of the fragility of the trust factor, and respectful of confidences between mentor and novice teacher (Haipt, 1990; Brock and Grady, 1998).

Evaluating the Program

Evaluation is an area often overlooked in mentor programs. An annual evaluation by both mentors and mentees is an integral component of a successful program. Mentors should provide feedback regarding program goals, matching of participants, role expectations, time management, resources available and administrative support. Mentees should be asked to evaluate the program in light of their socialization into the school and development as teachers. Information gathered should be used by the principal to determine if program revisions are needed (Heller and Sindelar, 1991). Other data sources include indicators of student learning, principal's observations of mentees, and parent feedback. These data provide the basis for planning and program revisions. The needs of first-year teachers are not static; thus the program needs to adapt to emerging needs perceived by mentors, mentees, and principal (Brock &Grady, 1997).

Conclusion

The success of beginning teachers is critical to student success, and the success of both is largely the responsibility of the principal (Fischer, 1997). Each new hire has the potential to either enhance or diminish the overall quality of learning in the school. Given the significance of the principal's responsibilities, providing a developmental first-year teacher induction program that includes a mentor program should be a top priority (Lee, 1994; Sergiovanni, 1994; Brock and Grady, 1997).

Effective mentor programs require the support of the faculty and all levels of the school's administration, including the superintendent and school board. The principal, however, is the pivotal figure whose direct involvement in each step of the program's development and implementation is crucial. Principals who understand the benefits and are willing to invest the time required in developing and maintaining effective mentor programs will be rewarded richly with successful entry-level teachers.

This article was based on information contained in *From First-Year to First-Rate: Principal's Guiding Beginning Teachers*, co-authored by Drs. Barbara L. Brock and Marilyn L. Grady and published by Corwin Press, 1997.

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Important Notice

Presenters, Attenders, and MWERA Officers,
kindly put the following date on your calendars:

September 24, 1999

This is the final deadline for you to pre-register for the MWERA 1999 Annual Conference, plus it is also the deadline for securing your room reservations at the Holiday Inn–Mart Plaza at special conference rates. By submitting the forms (found on pages 39 and 40) before this deadline you'll be able to save $$$, both on the meeting registration fee, as well as on the lodging expense you will incur by waiting until later. So please don't delay, send in your forms today, or at least before September 24th, 1999, rather than throw your good money away!

Mentoring and the Impact of Local Teacher Organizations

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The influence of all the forces and factors that affect education today are numerous and widespread. They include: accreditation agencies, state departments of education, foundation, civil rights groups, publishers, state policy makers, colleges and universities, state and national teacher organizations, media, research establishments, and many others. Perhaps overlooked, but the one that often has the most impact on the implementation of many educational aspects is the local teacher union/organization. They can, in effect, bring success or failure to an idea through local interpretations, negotiations, and implementation details.

Mentoring is one area where the local teacher union input seems to have great latitude. While there has been much written regarding the roles of mentors and the impact of mentoring programs (e.g., Little, 1990; Bendixen-Noe and Giebelhaus, 1997; Ganser, 1994; Huffman and Leak, 1986), how these roles are played out in the local school systems are often determined by local teacher organizations. These entities often negotiate the 'nuts and bolts' of the mentoring role as defined in local contracts.

The importance of mentoring programs have been addressed by both national and state teacher organizations. The 1998-99 National Education Association's (NEA) Resolutions emphasizes the impact of these programs. It states:

> The National Education Association believes that mentor programs are a means of enhancing the professional expertise of employees. The Association also believes that the planning, implementation, and evaluation of such programs must be negotiated or cooperatively developed and maintained by the school district and the local affiliate.
>
> The Association further believes that the duties and responsibilities of all parties must be clearly defined and uniformly administered. Mentors must be selected through a defined process with articulated criteria, be properly trained and compensated, and be provided with adequate time to fulfill their responsibilities. The state or local authority has the obligation to provide hold-harmless protection.
>
> The Association further believes that any documentation that results from the mentoring process must be confidential and the sole property of the person mentored, and must not be included in the participant's personnel file (p. D-9).

This resolution seems to emphasize a movement in the past decade by the NEA and the American Federation of Teachers (AFT) towards the idea of professional unionism. This perspective views teachers as professionals who uphold high teaching standards and who understand the interdependency of workers and local school authorities. Helping local unions take a more active role in educational reform is fundamental in this movement (Peterson, 1997). Mentoring is viewed as one element in this "union led effort to restructure the nation's teachers' unions to promote reforms that will ultimately lead to better learning and higher achievement for America's children. The primary goal . . . is to create a new union model that can take the lead in building and sustaining high performing schools for all students in an increasingly complex and diverse world" (NCEA, 1994).

Beginning in 2002, Ohio law mandates that every school district who hire entry level teachers establish and maintain an induction year program that will aid these individuals in their professional development (Ohio Administrative Code 3301-24-04). Guidelines and specifics are minimal and are left to the local school district. To help facilitate this program, grant monies have been available so school districts have an opportunity to develop and refine their interpretation of what mentoring programs look like and how they are effective.

At a recent leadership conference of the Ohio Education Association (OEA), I was invited to help conduct mentor training. The OEA (1997) has identified the development of mentoring and peer assistance programs as important to having and maintaining well-trained teachers. The leadership conference is comprised of local teacher organization members and officers who gather information to take back to their respective school districts. Many of these items are often newly legislated elements or current issues and/or trends which will probably be negotiated in future contracts. During the mentor training, concerns and issues emerged emanating from the mandated mentoring soon to be required of school districts who hire entry year teachers. The influence of the local teacher union/organization was highly evident.

To no-one's surprise, the local contract appears to hold an important key to the operation of the mentoring program. Many individuals felt the need to become better informed as to the intent of the legislation so they would meet compliance standards. While many saw the benefit of mentoring programs for beginning teachers, the concerns seemed to center around several areas, which included: money, defining the mentoring role, mentor selection, training, scheduling, and administrative support. While there appears to be very little written on teacher unions and their role in mentoring programs, there is an abundance of literature on mentoring available. This should help inform local teacher organizations in their quest to develop, refine and implement mentoring programs. As a result, this paper will attempt to address issues that unions will face as they work through this process.

Finances

Money was mentioned as the vehicle necessary for the true success of local mentoring programs. Teachers felt they were already having difficulty in finding time to complete all their current tasks and that the aspect of taking on one more job, such as mentoring, was daunting. Receiving pay for what was being mandated as a critical component in a beginning teachers' professional development is viewed as vital for a favorable mentoring program. Teachers fear money, or rather the lack of money, will limit the amount of release time necessary for completing the duties seen as essential to their role as mentor. One of those roles is observing beginning teachers in their new role and providing constructive feedback. Without adequate release time, the coaching element of mentoring could become nonexistent. Since many schools are already struggling with inadequate funding, the issue appears insurmountable. Teachers voiced the opinions that this could result in lower pay and pay raises, fewer resources for their classrooms, and little or no money available for professional development for teachers beyond their entry year. With much nodding of agreement from others, one local representative said, "There is only so much money. If we negotiate that money to serve mentoring programs and mentors, it has to come from somewhere. Something will have to give. Something else, equally as important, won't receive funding because of this new mandate—especially since there are currently no line items in the state budget to help support it."

Relying on outside funding sources may lead to the future demise of mentoring programs once those monies are gone or no longer are allocated to induction programs. This type of mentality often stops individuals and school systems from conducting creative problem solving and reduces their sense of ownership in a mentoring program. Reality tells us there will never be enough funding available or allocated for all the programs deemed important in education.

Perhaps the bigger issue is can schools afford to not financially support their mentoring programs. A lesson from business may be one we need to adhere. Many organizations are instituting formal mentoring programs as a cost-effective way to upgrade skills, enhance recruitment and retention and increase job satisfaction (Jossi, 1997). Since recent reports have indicated we lose up to of all beginning teachers to attrition and we may be facing teacher shortages in many content areas due to retirements, we may need to look at the area of financing in a different way. Instead of saying "How can we afford mentoring programs?", we probably should be saying instead, "How can we NOT afford mentoring programs."

The Mentor Role

Defining the mentoring role beyond the vague legal mandate will also be important to local teacher organizations. Individuals stressed the need for each school district to personalize the mentoring program to fit their local needs and situations. Concern was voiced about the mentoring role becoming too cumbersome for a person to handle, if additional responsibilities were added to it. They say this was a real possibility, especially if money was allocated to mentors. They also wanted assurance that they would be seen as a mentor, not an evaluator.

Roles of teacher mentors have been addressed in the literature. Huffman and Leak (1986) found effective mentors provided positive reinforcement, moral support and someone who would listen with understanding. More recently, Ballantyne, Hansford and Packer (1995) identified four important roles mentors must undertake in order to be effective. These include: (1) task related assistance, (2) problem solving assistance, (3) personnel support, and (4) critical reflection and feedback on teaching. In several studies (Wilkinson, 1994; Ballantyne, et al., 1995; Harnish, 1994; McNamara, 1995; Huling-Austin and Murphy, 1987) beginning teachers noted areas in which mentors were most helpful. Information regarding school routines and policies was deemed necessary. Additionally, help in lesson planning, management and teaching strategies were highly valued.

Mentor Selection

Mentor selection will be critical to a program's success. Many local union representatives were concerned how mentors would be chosen so that indeed the 'master' teachers would be available to help beginning teachers. Discussion emanated that obvious selection criteria such as seniority or "just the desire" to serve as a mentor was not always appropriate. Representatives were very honest in stating that number of years teaching or the interest in helping others often would not constitute a good mentor. Many examples of practicing teachers who fit these elements were presented. Additionally, others were mentioned who would probably want to become a mentor especially if additional money was attached to that role. Individuals were concerned how the mentor's role could be rotated so that training was available, everyone would get a chance to participate in that role, and no-one would get "burned out". It appeared that the same individuals usually volunteer at many local school districts for everything. The problem of mentor selection being viewed as a political decision was presented, since many seemed able to identify teachers who often were selected for knowing someone in a position of power rather than for their expertise in the classroom. Finally, apathy was mentioned as a problem for many of the teachers in their local school systems. The participants feared that perhaps they would get no volunteers for the mentor role since it often appeared that no-one seemed to want to do more than what they were required to do.

Identifying individuals who will be good mentors is vital to the success of a mentoring program. Literature once more may guide local unions in deciding how selection of mentors can be handled. Much has been written regarding characteristics and skills identified as necessary. Competencies mentor teachers need to possess include: knowledge about and use of effective classroom management, good communication skills including the ability to give constructive criticism and provide positive feedback, successful teaching, willingness to commit time, knowledge of progressive teaching strategies, ability to help beginning teachers in critical reflection, ability to be flexible about their role as a mentor as the novice teacher develops, knowledge about their school's and district's policies, procedures, curriculum and courses of study, and remaining open to their own personal and professional growth and development (Wilson and Ireton, 1995-96; Butler, 1987; O'Dell, 1987; Fletcher, 1995; Ballantyne, et al., 1995; Rowley, 1999; Gordon, 1990; Heller and Sinder, 1991).

Mentor Training

Mentor training was also identified as an item that could be impacted by contract negotiations. Comments dealt with the amount of money available for training, the quality of training and how much training was necessary for a successful mentoring program. Many ideas were tossed about regarding this area but remained even more elusive than some of the other areas. Most did agree, however, that training was essential.

Training for mentors is critical. Research has found that when these individuals receive no formal training or compensation they often dis not follow through with their assigned tasks (Kilgore and Kozisek, 1988). However, mentors who were part of formal training programs with follow-up activities were more successful not only in their role but in helping beginning teachers in becoming more effective in their teaching (Ganser, 1995; Hawley, 1990; Warren-Little, 1988; Theis-Sprinthall, 1986; Giebelhaus and Bowman, 1997; Kennedy, 1991). Areas in which mentors should receive training include supervision (Hart, 1985), teacher development, beginning teacher problems, and adult development (O'Dell, 1987), and knowledge of and skill in recognizing effective teaching practices (Giebelhaus and Bowman, 1997).

Scheduling of Mentor Visits

Scheduling of classes so a mentor could observe the beginning teacher was seen as a potential obstacle. Teachers were concerned as to how this would or could occur if observations were indeed part of the mentor's responsibility. If release time for mentors was difficult to obtain, scheduling was touted as the next best option. There were, however, several looming limitations. If the mentor and protégé were in separate buildings it would be extremely hard to use one's planning period to travel to another school, observe the beginning teacher and then return to one's classroom in time for the next class period. Often, in elementary schools, specials such as art, music or physical education are not in a block of time but are often in 20 or 30 minute segments scattered throughout the day and the week. This would make is extremely difficult to arrange suitable schedules. Middle school practitioners stressed the possible hardship of giving up team planning time so they could observe. They felt that as team members they would be 'letting their team down.' Teachers concluded that while observations could work through careful planning, it would be important to explore other options so the best alternative could be utilized.

Creativity in scheduling will certainly become a necessity as schools either begin or continue programs in mentoring. While teachers identify scheduling as a potential barrier (Osten and Gidseg, 1998), many school systems have been able to work around this obstacle with much success. Perhaps through discussions with schools who have been successful in this area, other local unions will be able to identify how the potential problems of scheduling could not only be overcome but actually become an asset. One example could be in how schools compensate teachers when they "sub" during their planning time. Instead of actual payment, perhaps compensation time could be gained. For example, if there were eight class periods in a day, each time a teacher subbed for another teacher they could earn of a day in compensation time. This could then be used in addition to any other accrued time. Teachers may see this as more of a benefit than the often times paltry monetary sum given for subbing one class period. In this way teachers could sub for mentors and also be compensated for it. Mentors would then be freed up to visit and observe a entry year teacher.

Administrative Support

Administrative support was also indicated as important. Teachers said they wanted their administrators to understand the value of mentoring and to be flexible in defining individual mentor/protégé relationships. They expressed the desire that administrators be able to keep teacher evaluation very separate from mentoring but were afraid administrators at "crunch times" would want to combine the two, either through mentor input or by disregarding the 'true' role of the mentor. Conversations became a very "us against them" approach when talking about this element. Teachers felt administrators would use the mentoring program as just another bargaining chip when it was contract time.

The role of administrators in mentoring programs has not been addressed with much frequency in the literature. However, they can play an important role in the mentoring program's and beginning teacher's success. Brock and Grady (1997) found that often once mentors were assigned to entry year teachers, principals often discontinued their participation in the beginning teacher's induction year. Apparently they are assuming that things are under control since the new teacher has a mentor to go to when needed. Since many schools yield a high attrition rate of beginning teacher, administrators need to remain as a vital and visible entity in those first years of teaching.

Final Thoughts

Teacher organizations will have a powerful impact on mentoring programs. While certainly these organizations at both the state and national levels can help by giving guidelines and information, ultimately it is up to the local organizations to figure out a system that will work for them. While nothing mentioned is new, it bears remembering and revisiting. Often, educators who have moved from the local level fail to remember that regardless of how good an idea is, it is up to those teachers who are actively "in the trenches" to make things work. Local teacher organizations have a major impact and investment in developing and maintaining mentoring programs. This entity can easily be overlooked or underestimated, but are a 'real power' in vital decisions at the level where it counts.

In an address to the AFT/NEA Conference on Teacher Quality, Linda Darling-Hammond (1998) emphasized the importance of quality mentoring for beginning teachers. She stated those schools who provided expert mentors and gave them release time to coach beginning teachers have reduced attrition rates of beginning teachers by more than . She further encouraged unions to "work with school district officials to develop induction programs for beginning teachers, incorporating internships in professional practice schools and mentoring through peer review and assistance programs" (p. 10).

Local teacher unions/organizations are one of the key players in the successful implementation of mentoring programs. Additional key players include administrators, state legislators, colleges and universities, state department of educations, and other parties involved in education. By working together, these vital elements should be addressed so that it becomes a win-win situation for all.

While many local unions may be new in negotiating the how's, what's and why's of their mentoring programs, much information is readily available to assist them in their journey. Mentoring programs need to be designed based on informed decisions. In this way they have a greater chance of success. Research also needs to be conducted that would investigate the local unions role in these programs.

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With a Little Help From My Friends:
A Course Designed for Mentoring Induction-Year Teachers

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Introduction

In the past 20 years, educators have paid increasing attention to the need for mentoring novice teachers within the context of the classroom. This has become a principal component of a number of both state-mandated initial certification programs and preservice teacher training programs (Huling-Austin, 1989a; Huling-Austin, 1989b). Some of this concern can be traced to the stressful nature of teaching which leads to nearly 50% of new teachers leaving education after teaching for seven years or less (Huling-Austin, 1989a). Given the increasingly complex nature of teaching and the demands for accountability by the many stakeholders of schools, including students, their parents, legislators, and business leaders, the stress is not likely to lessen for new teachers. In response, school districts nationwide are designing and delivering various forms of support for their new teachers. However, just because districts say they have a mentoring program in place does not mean that new teachers are provided with the support they need to become successful educators. In criticizing current mentoring programs, Little (1990) stated that many provide assistance but not true mentoring, partially because the mentors do not fully understand their roles. Therefore, to deliver on the promise of mentoring programs, planners must facilitate novice mentors in understanding their roles by providing them with both the requisite knowledge, as well as practical experience, that can help them grow into the complexity required of "real" mentoring (Bey, 1990).

The Legislated Need for Mentoring in Ohio

According to Rule 3301-24-04 of the Ohio Administrative Code for Teacher Education and Licensure Standards, all provisionally-licensed teachers in Ohio will soon be required to successfully complete an entry year program prior to being issued their first professional license. According to the standards, this program will include "a formal program of support, including mentoring to foster professional growth of the individual" (p. 8). Because this standard will be in place in less than three years, districts are beginning now in planning to meet this new demand being placed upon them. They are determining the designs of their mentoring program, how they will select and identify mentors, and how mentors will be trained and supported, in addition to many other concerns. Guidelines are minimal, and the implementation of most decisions remain local concerns. Because education faculty in Ohio have been working on redesigning our own programs for the past 18 months, we are certainly more aware of the ramifications of these standards on new teachers and the districts that hire them. It is because of this knowledge that those of us in higher education can provide a valuable service to local school districts by helping them design mentoring programs that will be contextually-sensitive and meaningful for the teachers who must carry out the job of continuing to support the teachers that we are sending out of teacher preparation programs.

In designing the mentoring program that will be described, several principles helped guide the process. First, it was important to go in as a collaborator rather than director of the program. That meant that it was important that the voices of the teachers, so often acted upon by higher education faculty and institutions, were parties to the design. Second, the delivery of the program must be interactive and meaningful for participants, consistent with the paradigm shift being experienced in staff development. Finally, since this was this district's initial effort at establishing a formal mentoring program, the design must meet the differing needs of novice mentors and induction-year teachers (see Figure 1). The original proposal of the course, therefore, was based upon two equally important principles: 1) that novice mentors must gain skills and knowledge to provide their proteges with substantive feedback within a supportive, non-threatening atmosphere in order to grow into their professional responsibilities; and 2) that current teachers and administrators needed to provide induction-year teachers with information that will promote their "survival" within the culture of the school.

Collaboration Among School—Higher Education Partnerships

In early October of 1998, I was approached by Pat Murphy, the Director of Curriculum and Instruction for the North Royalton City School District in Northeastern Ohio, to do a Pathwise training session for them. They had recently received a Peer Assistance and Review Pilot grant for a planning year to train mentors to support their induction-year teachers beginning in the 1999–2000 school year. As Pat and I spoke, we became aware that there were greater possibilities for designing a professional development program for their teachers than just the two-day workshop for which she had contacted me. Based on our conversations, I offered to draw up a proposal that Pat and the grant review committee, made up mostly of teachers, would consider. Shortly after this initial meeting, I proposed, and the committee accepted, the general outline of a two-graduate-credit course—Mentoring Induction-Year Teachers—as meeting their needs. At that point they called me in to discuss the proposal in more detail.

College and university faculty are often seen as threatening to teachers; certainly they threaten the autonomy of the teachers who were initially trained by faculty from the college. This teacher-learner/expert-novice relationship, a phenomenon in schools that Smith (1983) refers to as "soft-core ignorance" (p. 3), is often perceived by teachers (and projected by professors) even when unintended. Historically, research faculty have tended to treat schools and teachers as **subjects of**, rather than **partners in**, their projects. As such there is often a great deal of "baggage" that must be dealt with before a mutually satisfactory relationship can be established. This was not the situation into which I walked. The teachers and administrators on the committee had a vision of what they wanted to accomplish, but they needed some guidance. After meeting and stating their views and listening to my vision, they took a leap of faith, willingly relinquishing most of the control for the planning of the course based upon our apparent shared visions for both design and delivery. One point upon which we all agreed was that this was a program designed especially for them.

New Roles for Staff Developers

In developing programs designed to meet the needs of individual districts, staff developers, including those of us who teach in higher education, must be willing to explore new roles. To foster meaningful change in educators, staff developers must provide opportunities that "not only . . . affect the knowledge, attitudes and practices of individual teachers, administrators, and other school employees, but it also must alter the cultures and structures of the organizations in which these people work" (Sparks and Hirsh, 1997, pp. 2-3). The change in staff development inherent in this quotation presents itself in different ways of "doing business" for developers. Sparks and Hirsh discuss the implications of this paradigm shift by acknowledging that the practices they describe are currently being used more than traditional methods, and they argue that the most critical consideration is matching learning processes to the goals of the program.

In order to best match the business of staff development with the learning process and goals for this program, we took into account several of the shifts to which Sparks and Hirsh referred. First, the course was delivered on site rather than at the college. Second, the workshops avoided the typical "sit and get" method of staff development and were built upon constructivist principles, providing participants with opportunities to interact with content, presenters, and each other. Finally, the mentoring program itself represents a systemic change for the educators in this district. This requires that individuals at all levels develop new ways of looking at what it means to do their jobs effectively. While the training itself will aid the individual development of participants, ideally it will also provide them with the cognitive orientations to guide the change process as the district takes more responsibility for developing their new teachers and changes their practices in clinical supervision.

The Program

What began in the discussions previously described has turned into a year-long relationship in which teachers, administrators (both central office and building), and higher education faculty from three institutions have come together to collaboratively deliver a two-semester-hour course, Mentoring Induction-Year Teachers, mentioned previously. While the work still continues, the remainder of this paper will present the general format of the course and some of the process in which we engaged as we continued to modify it to meet the needs of the prospective mentors.

Providing Substantive Feedback for the New Teacher

Prior to their first jobs, the experiences of induction-year teachers will be as diverse as the individuals in terms of the support they have been provided. During the student teaching process, however, all of them will have had at least the support of two professionals: their cooperating teachers in the school and their university or college supervisors. Though even the support here may be quite varied, it is more than most new teachers will receive after they sign their first contract and are expected to live up to all of the expectations of a teacher within the building. It is also highly likely that, given the busy-ness of the opening of school, they may not see another professional in their rooms until several weeks or months have passed. Under these circumstances, and with few experiences upon which to base their judgments, it is not surprising that new teachers may not know how they are doing.

In trying to fulfill this responsibility to new teachers, though, a second problem arises. Unless mentors develop the necessary skills and knowledge to provide new teachers with substantive feedback on how they are doing, a mentoring program may do more harm than good (Bendixen-Noe and Giebelhaus, 1997). The mentors, therefore, need to be provided with training and knowledge to understand both the function of mentoring and the process (Head, Reiman, and Thies-Sprinthall, 1992). To do that, we took a two-step approach. First, we provided teachers with a framework, the Pathwise Performance Assessment (Educational Testing Service, 1995), that identifies teaching behavior based upon a researched knowledge base (Dwyer, 1994). After training prospective mentors to use the Pathwise system, we focused on developing skills in cognitive coaching (Costa and Garmston, 1994) that they could use to implement this framework with a protege.

Using Pathwise to Begin a Conversation on Teaching and Learning. As I talked with the teachers who had volunteered to participate in the mentoring program, I discovered something that I suppose I had always known but that the discussion underscored for me: Teachers do not necessarily share a common language that allows them to talk about teaching and learning. Lest this be misinterpreted, let me add that the teachers who participated were all accomplished professionals who could speak eloquently about the teaching and learning that were taking place within their grade level and/or discipline. Most of them had also worked with student teachers previously, so they had some experience in interpreting the subtleties of a classroom with a novice professional. What they lacked, however, was a comfortable way into the conversation about what good teaching looks like. To facilitate these discussions, we chose the Pathwise Performance Assessment (Educational Testing Service, 1995).

Pathwise is a framework that delineates the characteristics of effective teaching into four domains: planning, creating a learning environment, teaching for student learning, and professionalism. Each of these domains is further broken down into criteria that reflect the effective teaching research knowledge base (Dwyer, 1994). Over the past three years the Ohio Department of Education, in preparation for the previously-mentioned mentoring component of new licensure requirements, has coordinated and facilitated the training of thousands of teachers who have become certified Pathwise observers.

The training consists of two intensive all-day workshops in which teachers learn about the characteristics of the different criteria through readings, direct instruction, collaborative inquiry and general discussion. These activities are designed to assist teachers in constructing an accurate conception of each domain and identifying positive and negative exemplars of teacher and classroom behaviors that indicate a new teacher's skill level under the standards within each domain. In addition to building the knowledge base, over the course of the two days, teachers engage in numerous simulations, by following teachers' sample paper trails under planning and demonstrating professionalism, as well as simulating the observation experience by watching videotapes of lessons. During these videos, the trainees practice gathering the evidence they will need to document teachers' adeptness at creating learning environments and teaching for student learning. They also practice writing summaries that accurately capture the strengths and weaknesses of the teachers' lessons and making suggestions that reflect these same strengths and areas of concern. In the process, the trainees learn about the forms that PRAXIS III assessors will use as they evaluate new teachers for their initial professional licenses.

After they finished the Pathwise training, which was done on consecutive days, the mentors were given three weeks in which to do an observation of another teacher using the framework. Recognizing the amount of paperwork involved and not wanting to put that on their peers, some chose to observe each other. Others decided to collaborate on an observation, having two or three observers enlist one teacher's cooperation. This not only limited the number of teachers that had to be recruited but also allowed the novice observers an opportunity to provide and receive feedback from each other based upon a common source. Regardless of how they did their observations, teachers came back at the end of the three weeks and participated in a debriefing. The session reinforced evidence-gathering procedures and the documentation process, provided further practice in the writing of domain summaries and suggestions, and allowed teachers the opportunity to discuss the process with each other and a certified Pathwise trainer. While this provided a general framework for the meeting, one intent of the debriefing was to model the mentoring process, allowing the concerns of the novice observers to drive the session and providing them with feedback on their own performances as they used the framework for the first time.

Overwhelmingly, teachers commented positively on the concreteness and clarity of the criteria (Salzman, 1999). They reported that Pathwise compelled them to focus on the characteristics identified in the framework as they watched teachers' lessons. In the words of one teacher, the "framework requires you to have **evidence** which takes out any 'bias' you may have. It allows you to be objective." Another teacher, who also cited the objectivity, added: "It also helps the teachers being observed know what things they are doing well." While the structure provided by the framework was cited positively, teachers expressed concern about their ability to accurately document teachers' actions and words under the appropriate criteria. Of course, this is a typical concern of using any newly-learned system or skill and will fade with continued use of the framework. A greater concern of teachers, though, and one that could not be addressed by continued use of Pathwise, was summed up by one who said "There is so much uncertainty about what being a mentor would entail—how I would spend my day, how I would help the mentees . . ." It is this concern that led to the next series of workshops.

Using Cognitive Coaching to Support New Teachers' Development. Prior to their Pathwise observation, not one of the teachers reported having been in a colleague's classroom to observe a teaching episode in the past five years at least. As a group, they indicated they did not feel comfortable entering their colleagues' rooms to watch. For most, the Pathwise observation seemed to shake loose some of that anxiety and provided teachers with a structure to begin to talk with their colleagues about teaching and learning. And with this concern aside, teachers started to focus on the bigger picture of mentoring. In responding at the debriefing session to concerns at this point about being a mentor, one elementary teacher stated: "Would I be able to develop a rapport with the teachers I observe? . . . As a mentor, I want to be a partner in teaching as well as a resource of assistance." This attitude of "partner-ing" provided the ideal starting point for teachers as they acquired the skills and learned processes that would enable them to coach their proteges' development.

The term coaching has been used often to describe a cycle of events, similar to teacher evaluation through clinical supervision, that includes a pre-conference interview, observation of a lesson, and post-conference interview. While there are many models available, we made the decision to use cognitive coaching (Costa and Garmston, 1994), partially because of the resources (Costa and Garmston, 1988; D'Arcangelo and Wurzburg, 1988) available to help novice mentors visualize and simulate the process. We also modified this model somewhat, choosing to add mini-presentations: one on current mentoring research, which was integrated throughout the workshops, so that participants could see how cognitive coaching fits into the mentoring landscape; and one on adult learning theory to sensitize participants to some of the learning needs that their colleagues might have that mentors will need to meet.

Cognitive coaching (Costa and Garmston, 1994) is organized around three major goals: building trust between coach and colleague; facilitating mutual learning; and enhancing growth toward holonomy, which is described as "individuals acting **autonomously** while simultaneously acting **interdependently** with the group" (p. 3). Teachers began their work toward realizing these goals by participating in two 3-hour workshops. Session one dealt with developing trust-building and questioning skills. Session two provided mentors with practice in responding to and empowering their proteges. Each of the sessions provided participants with exercises, videos, discussions and simulations of coaching experiences. Whenever possible, as facilitator I made explicit connections between the development of these coaching skills and how to use them in conjunction with the Pathwise framework.

Most participants came into the cognitive coaching sessions not knowing exactly to what they would be exposed. They had not necessarily heard of cognitive coaching and, of those who did express an opinion on what they expected, most merely said that they anticipated that they would learn a "method of mentoring" or words to that effect. During the sessions, a number of the teachers stated that the rapport building skills of matching gestures and tone, as well as some of the questioning techniques, seemed like they were "common sense" reminders of things that one normally does with someone with whom one shares a rapport. One of the dynamics that appeared to be taking place during the training was that the participants had all bonded with each other and felt a high level of comfort and trust. That familiarity and comfort, a real positive in most ways, also seemed to make it difficult for some to initially see the usefulness of some of the techniques in the exercises. For instance, the exercises that involved attempts to build trust were difficult for some to take too seriously because the group as a whole had already developed trust among each other. As we processed the various simulations and examples, though, most participants recognized that knowing these techniques would provide them with strategies that should prove helpful to use with someone with whom they have no prior relationship. It appeared that the opportunity to discuss how the strategies could be used in a mentoring relationship seemed to be especially beneficial for most of the prospective mentors.

Though there seemed to be some initial resistance to the "common sense" nature of some of the coaching sessions, afterwards participants cited several components that were meaningful to them. Almost to a person, they identified the trust building skill of paraphrasing and the questioning skill of presupposition as being especially powerful for them to use in working with a new teacher. One participant stated that she had gained a "deeper understanding of the power of language (both verbal and body) in communication between mentor and mentee. Even the simplest statement can be a presupposition and be taken negatively by the recipient." Several others said they appreciated the positive spin that cognitive coaching techniques took on the mentor-protege relationship. One stated that she found that knowing about presuppositions allowed her to go into a mentoring relationship having an "attitude that this is a good teacher and therefore not putting [that person] on the defensive." And, even though many resisted the trust-building exercises as being common sense, the majority of participants also stated that those techniques would be among the ones that they perceived as being of most use to them as they establish their own mentor-protege relationships.

One unplanned and certainly unintended benefit to many of those who went through training was that they saw immediate benefits of the coaching sessions on their own teaching practice with their students. One summarized this position when she said that she thought "many of the strategies (rapport building, presuppositions, etc.) will be helpful to me in my own classroom when working with students and dealing with parents." Echoing that comment, another teacher said she had gained "a better understanding of myself and how I have been relating to [my] students." One other said she would be a "better listener" in both her classroom responsibilities and as a possible mentor. Finally, almost every respondent in their post-coaching feedback said that what they still need to do is to use these techniques and have "time to practice so that [they] become internalized."

Helping the New Teacher Survive

Both the Pathwise framework and the cognitive coaching techniques were perceived by participants as powerful tools for them to use as future mentors. From the proposal and our initial discussions, however, all parties agreed that the capstone component of the course would allow prospective mentors to develop mentoring handbooks. Though this would be the last thing we do, it was one of the pieces of the proposal to which planning committee members responded most enthusiastically. As of the date of submission of this article, teachers had not yet engaged in this process, so it is difficult to determine exactly what form these documents will take. However, based on nearly ten years of developing mentoring programs, Bercik (1998) offers a number of suggestions that will guide this process. First, she suggests that handbooks need to be sensitive to the culture of the school. Because of this, it is probable that each school's mentoring handbook will likely look different. Currently teachers are brainstorming ideas for items and information that they may include, and they appear to be settling on handbooks that contain two sections: 1) a section that describes the mentoring program in general terms, explaining the roles and responsibilities of both mentors and induction-year teachers; and 2) a section devoted to the individual school. This latter section may include information about the school and district and/or lists of resources and expertise of individuals on staff and in the community. It could also be used to collect forms (e.g., IEPs, media requests) and assemble information (e.g., protocols for field trips or accessing a materials budget) that new teachers will find helpful and/or necessary to know in order to concentrate more fully on their planning and teaching.

As teachers are engaging in the series of workshops designed to prepare them for their mentoring roles, they are gathering documents, considering the information they want to include, and formulating mission and policy statements. The final scheduled meeting of the course is a work session that will allow teachers to begin to compile and format the materials on which they are working. Teachers recognize that they cannot anticipate everything that a new teacher will need but they are looking to have a document that can ease the transition for their newly-hired peers. They also recognize that this handbook is a dynamic and fluid document that will continue to grow as the program grows.

Summary

Ringo Starr sang that he could get by "with a little help from [his] friends," and that is what new teachers are asking of their mentors as they begin the difficult task of being inducted into the teaching profession. New mentors will probably be asking the same question, especially as they work to overcome their own anxieties about the awesome and uncomfortable task of coaching their peers' development as teachers. Certainly that is the refrain I sang as I embarked on this odyssey, and I was fortunate that old friends and new stepped forward to help me, collaborating with me as we designed a program intent on helping good teachers mentor their colleagues into being good teachers, too.

It is naive to think that in the course of 30 contact hours that novice mentors will come away as fully-functioning super mentors, capable of leaping tall stacks of curriculum guides in a single bound. Also, as this is still a work in progress, there is much work yet to be done. The beginning, however, is encouraging for all involved. District personnel, especially the teachers who will be on the front line of the mentoring process, have had opportunities to shape the design of the program. To this point, the teachers in North Royalton have interacted in significant ways with the concept of mentoring and looked at teaching and learning through the lens of the Pathwise framework. They have also considered how they will use the techniques provided by cognitive coaching to empower their proteges as these new teachers develop into self-directed and autonomous teachers in their own rights. As of this writing, they were preparing to write and compile the document that will guide, and upon which they will begin to measure the success of, their initial efforts. They recognize that this is their starting point. Though none of us can yet anticipate the future needs of the participants, teachers can build on this effort as they search for the external and internal sources of assistance that can lead to significant changes in the districts' support for new teachers.

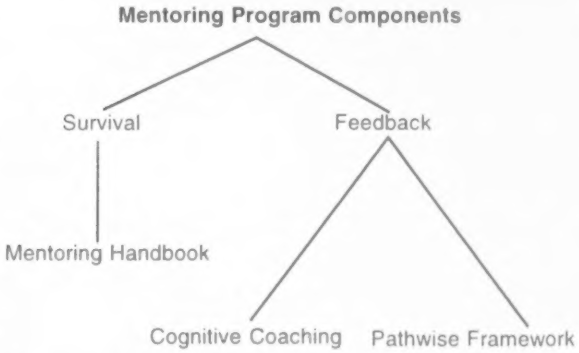

Figure 1. Guiding Principles for Planning a Mentoring Program

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Extending the Vision:
Mentoring Through University-School Partnerships

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To bring about student achievement, school improvement and educational reform must be coupled with teacher development (Holmes, 1995; Sykes, 1996; Wilson, et al., 1996). Universities that are in the business of teacher training must be willing to actively engage in programs that significantly impact teacher development by becoming pro-active, taking on "leadership roles", promoting and providing professional development programs and making opportunities available for lifelong learning (Ishler and Edens, 1993). Teachers, administrators, university faculty, and prospective teachers must have firsthand experience with new and "reconceptualized" notions of teaching and learning to meet the needs of our ever-changing K-12 population (Goodlad, 1990) and the increased demand for classroom accountability. One means of accomplishing these notions is through the use of a well-defined mentoring program.

Background

Over the past two decades, the national rhetoric has focused on educational reform and improvement generally. This has created a climate where innovations, risk-taking, and experimentation have been encouraged. In states like Ohio, Kentucky, Connecticut, and Indiana such innovation has been promoted through state and federal money, new teacher education licensure standards, and performance-based assessment of teachers and teacher education programs. During the late 1980s, the Ohio Department of Education began to focus on the needs of entry-year teachers as part of the broader goal to provide "continual collegial support, feedback, and assistance essential for further (professional) growth" of teachers (ODE, 1990, p. IV). The establishment of university/school partnerships and mentoring has grown in this climate. In fact, the funding for competitive grants is contingent upon school district/university collaboration and the establishment of district mentoring programs. Tomorrow's Teachers (1986) called for working relationships between schools and universities to assure the public of well-educated teachers. This collaboration was intended to establish school sites as clinical and laboratory experiences for in-service and pre-service teachers alike (Cruickshank, et al., 1996).

Often, teacher education institutions examine the possibilities of establishing collaborative partnerships with local school districts to meet the needs of initial certification. Similarly, school districts are interested in higher education institutions willing to provide the professional growth, development, and support opportunities for experienced and entry-year teachers (Zetlin and MacLeod, 1995). When leadership in program development promotes true collaborative university/school partnerships and mentoring programs, an avenue opens for teacher education, research, and school improvement. Change occurs as those involved have opportunities to discuss, interact, and directly observe the impact of innovative teaching strategies.

This article presents a case study of the development of an award winning university/ school partnership—the core being teacher development through mentoring. The partnership gives ample opportunities for professional development and growth for practicing teachers and cultivates effective field placement sites for the professional development of future teachers. The focus of this collaborative partnership centers on teachers by helping them to reach their full potential through mentoring and research driven teaching strategies. This partnership has grown along with technology as the distance learning component has been added to the learning cycle.

The Vision

The conceptualization of this partnership came about after the hiring of a new superintendent in 1993. He spoke about a vision where "bus loads of university students arrive at our schools." This vision gained definition as discussions were initiated with the Dean of the School of Education at a private mid-western university. From these discussions the vision became a reality.

Phase I

As the university was approached by the school district, both saw the potential for a partnership to address their needs. The first phase of this partnership was based upon a mutually beneficial relationship. Pre-service teachers were assigned to schools within the district and university faculty conducted workshops. The first series of workshops dealt with "mentor/supervision" training and writing strategies promoting student achievement. The mentoring workshop focused on general principles and practices of effective supervision (i.e. the clinical model, observation strategies, and conferencing techniques). During the second session of mentor training, a new framework was introduced known as the PATHWISE Model of Assessment (Dwyer, 1994). This framework was implemented due to a new state initiative:

the piloting of this model for probable statewide adoption as Ohio moved to state licensure for teachers.

At the same time a multi-session workshop addressing writing at the middle school level was offered to language arts teachers. This workshop series provided participants with opportunities to learn about the theory, talk with other teachers from within the school districts, and develop implementation plans for their own classrooms.

Phase II

The next step in the involvement was the mentoring process for non-tenured and first-year teachers. The school district recognized that their mentoring program was not meeting the needs of their first-year teachers. Like most school districts, first year teachers were supported by a "rules and regulations" approach to mentoring. Prior to 1993, the school district was hiring only a handful of teachers. Since that time, the numbers have increased to an average of 29 teachers per year with the expectation that as the "boomers" retire and the district grows—more will be hired. The reality that by the year 2000, three fourths of the teaching staff (250) would have less than 5 years experience prompted investigation into the further development of the cooperating teacher/mentoring training program already in place.

The university and district decided to pilot, a "clinical mentoring program". This involved a paradigm shift for administrators and cooperating teachers as well as university supervisors. Formerly, the cooperating teacher/student teacher relationship could be described as a "spectator sport"; what the university and the school district administration proposed was that the relationship be more collegial such as that of a "team". It is generally understood that the success of a program is based upon the individuals (host school and its teachers) fully understanding the mission of the teacher education program and the roles and responsibilities of those most directly involved—the student teacher and cooperating teacher. The conversation of mentoring was revisited with each stakeholder understanding his/her role in this new adventure. Even with this conversation the notion of "clinical mentoring" was still misunderstood. The teacher's association representative expressed dissatisfaction with the plan. Basically two concerns were noted: teachers were paid to teach and assurance of quality control.

The university liaison worked closely with the school district and engaged mentors in workshops that promoted the new philosophy. It was found that the administrators wanted to be involved in this training and actively participated in the sessions. Through these sessions, cooperating teachers realized that classroom teaching could only be enhanced with the addition of this clinical mentoring program where a veteran teacher and a novice teacher work side-by-side with a common goal—student achievement.

Teachers involved in the clinical mentoring training program realized this model was unique. The focus was on communication. Participating teachers were introduced to the healthy triad relationship where university supervisor, mentor (cooperating teacher), and the student teacher work as a team to improve teaching and learning. In such a relationshjp communication is open, responsive, and ongoing. In this model, the triad is not a hierarchy, but rather a team supporting the professional development of the student teacher. The clinical mentor training program gives teachers the tools to effectively communicate with the pre-service teacher. It teaches the mentor not only the roles and responsibilities of supervision, but how to collect data , and how to give effective feedback, both positive and negative.

The mentors meet monthly to discuss concerns, research new teaching techniques, and agree on common procedures and initial expectations. The Lead Mentors, one representative from each of the buildings, planned workshops for entry-year teachers based on the input given to them by the mentors and mentees.

An unexpected development from the university/school partnership was the school district's desire to examine and develop a research-based teacher assessment process that included an active, empowering role for the teacher. The model they selected and piloted with assistance from teachers' union was performance based and addressed the criteria used in the mentor process as a framework for the assessment. This created a uniform language about teaching and learning for the whole staff as well as the mentor/mentee group.

Phase III

The third year found the university moving from one professor's involvement to a team of four professors. Each individual on the team represented a specific content specialty where the faculty members could work with specific age groups in the schools: primary, special education, middle school, and high school. Using the same team concept the cooperating teachers (mentors) and university faculty met bimonthly to discuss pre-service teachers, partnership, roles, expectations, and improvements to the program. Cooperating teachers' roles had expanded to and were viewed as adjunct faculty who took active roles in decision-making and leadership. The team worked not only as supervisors, but also as co-teachers. The clinical educators taught with the university faculty on campus, or on-site. The pre-service teachers believed they were receiving the best of both worlds, "We're hearing "how to" in our methods classes, but the clinical educator shows us the "HOW." The link from theory to practice was found to be stronger because both professor and clinical educator were reinforcing the same concepts and were speaking the same language. Classes were revised following the input from clinical educators and a closer, stronger trust bond was beginning to develop.

At the end of this phase a "renegotiation of needs" became apparent in order to enhance the program's effectiveness. To expand the role of our clinical educators, certain issues had to be discussed. The traditional model of having them come to the university campus to teach was not feasible. Time and parking constraints imposed problems greater than we could handle. The question, "Where do we go from here?", surfaced.

Phase IV

The university and the school district were both committed to this partnership, but the few glitches encountered became major stumbling blocks. An opportunity presented itself in the form of grant monies for wiring and distant learning equipment. This opened a new world and vision for the partnership. At the initial meeting it was decided by the group in attendance: administrators, teachers, and university personnel to pilot the idea of distance learning. Distance learning would allow the classroom teachers to be co-teachers without worrying about time releases, substitutes, parking, or travel. It was decided that four teleconferences would be held the first semester of the pilot. The grant monies received for the distance learning made it possible for the pilot to see how the "virtual classroom experience" would work. Once again the clinical educator became a critical part of the College of Education, making a seamless pedagogical link for students in teacher education.

The first teleconference met the definition of a video conference as defined by VanHorn (1999), a discussion between groups to solve a problem. This brainstorming session between the co-teachers from the district and the university team members occurred via teleconference. Ideas were discussed on how this new strategy would be used and implemented in to the general methods class. A time and date for the first session was discussed and much enthusiasm was generated with the possibilities set before the group.

The second teleconference involved the co-teacher onsite and the university faculty member on campus. The topic discussed was "Professionalism" taken from Domain D of the Pathwise framework (ETS, 1994). The equipment used was a two-way video and audio transmitter that allow students to be seen and to interact with the co-teacher. In most distance learning situations the format is a one-way video and a two-way audio thus limiting the interaction between the teacher and student (Malone, et al., 1998). With the two-way video teacher and students were able to observe each other's nonverbals and interact in a conversation manner. The university students' responses to this class were very positive.

Following the class, students' responses were recorded in a reflective journal. Students were instructed to write their impressions of the class, suggestions for future use, and effectiveness of deliverance. Student's responses were aligned with Kirkpatick's (1994) assessment model for evaluating training programs. The model looks at four areas: motivation (like it), learning (learn it), application (use it), and results (pay off). From the 48 responses, 100% of the responses were positive about the class (motivation), 90% rated the means of deliverance as being very effective (learning and results), and 75% gave suggestions for future use (application). Two major themes emerged from the journals: enthusiasm for use and future application. Student comments ranged from, "When do we get to do this again?" to "Did you rehearse your answers?". This second comment was made as a reaction to an affirmation by the clinical educator to an in-class discussion in a methods class the previous day. When theory is validated by practice (by the mentor teacher), students are more likely to accept the theory.

One annoying component of the system was the delayed response of two seconds following each comment. This technical difficulty is a problem when the connectors being at different levels. The university system is now being updated to be more compatible with the school district's system.

The third distance learning experience consisted of the university methods' instructors (three on-campus and two on-site), cooperating teachers (on-site), and students (on-campus) meeting to discuss the upcoming field experience. This was an opportunity for all of us to meet and learn more about the roles and expectations set by the participants in the program. The cooperating teachers (mentors) involved in the first teleconference session were very positive about the experience: however cooperating teachers (mentors) who did not participate in the first session, felt that this experience was a waste of their time and that nothing was accomplished. This attitude is supported by the literature suggesting that teachers and learners must possess a degree of confidence and comfort with technology in order for distance learning to be viewed as successful (Nay, et al., 1998). The methods' instructors who participated in the initial conference felt that this was a good introduction to the teachers and school prior to their visit. The students enjoyed the opportunity of meeting and talking to their cooperating teachers. They had opportunity to find out information about their class and teacher prior to entering the school as well as share information about themselves.

The fourth teleconference did not work as planned. The plan was to have an integrated language arts methods class visit via video conferencing an English classroom at the partner school. University students were to observe the co-teacher teaching and interactions with high school students so that a discussion could occur later with that teacher and the university students. The idea was to incorporate an actual classroom scenario into the specific methods class on-campus.

When methods classes incorporate actual classroom scenarios into their discussions, a clinical faculty is created within our public education system and completes the learning circle by providing a real frame of reference. As methods professors introduce theoretical frameworks, clinical educators open their classrooms to the pre-service student via distance learning, creating the discourse for application and transfer of learning. Pre-service teachers are presented the opportunities to discuss procedure with mentor teachers as well as the student in the classroom. This supports what we already know about problem-based learning and the reasons behind its effectiveness. Video capability brings a much-needed clinical experience to the pre-service teacher with the end result being a community of learners—teachers, professors, pre-service teachers, administrators—working simultaneously to improve student achievement.

The aforementioned paragraph was the plan and the rationale, but following is the reality. The equipment could not make the necessary link for whatever reason. We know that failures in technology are part of the struggles of using and integrating new approaches with traditional approaches. So, Plan B was implemented whereby the teacher videotaped his class and later the method's class viewed the tape followed by discussion with the teacher. This was a wonderful learning experience for all. Even though, it appeared that everything needed to make the connections was complete, there are times when technology simply fails. This was an opportunity to demonstrate to the pre-service teachers that though technology can be an integral component of the educational process and that technical skill and awareness are essential, one always needs to have a plan B.

Benefits

Beneficiaries of the partnership are many. For the school district the needs of entry-year teachers as they make the transition from college to the demands of full-time teaching are addressed by developing a core of trained peer mentors. These mentors know and understand the roles and responsibilities of mentoring and support during this critical transitional period. These same mentors are also prepared to assist preservice teachers as they struggle to make connections between the theory of college course work and the practice of teaching in a heterogeneous classroom. The experienced teacher who desires advanced certification, an expanded professional role, and/or the acquisition of new instructional strategies also has opportunities to participate in one of several workshop series at their school site. By enhancing the teaching of both current and prospective teachers providing them with the knowledge, skills, and support necessary to work with the changing and diverse population of students in our schools, increased student achievement and performance results.

For the university, the clinical mentor training has resulted in a core of trained teacher mentors at all grade levels and across disciplines who have the knowledge and skill to work with both pre-service and entry-year teachers. The placement of pre-service student teachers with trained mentors whose method of supervision includes a supportive, collaborative, team approach to teaching the children in their classes enhances the learning of both the children and teachers. Opportunities for using innovative practice (e.g. learning stations, role play, cooperative groups, and simulations) enhancing student achievement within various disciplines result. These prospective teachers, students in special methods classes, benefit from working with trained teachers who give them effective and appropriate feedback. (Giebelhaus and Bowman, 1996)

Finally, relationship between the schools and university is enhanced. Collaboration and communication is increased. Cooperating teachers can become adjunct university faculty which adds the "practitioner" component to the theory-to-practice model. By utilizing trained mentor/cooperating teachers, universities can save money. Although trained mentor/cooperating teacher for the University of Dayton are given a larger stipend than those who are untrained, the university does not need to hire adjunct university supervisors who are less visible and often much less familiar with the goals and mission of the teacher education program. Finally, university faculty have a viable, responsive venue for naturalistic research.

Conclusion

This model promotes active engagement of teachers with teachers, teachers with university faculty and teachers with preservice teachers. The potential offered through the use of technology can only enhance the partnership bringing real classrooms to university classrooms. The limits of our partnership can only be constrained by the limits of our vision.

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Conference Registration and Hotel Reservation

Attending MWERA—99 begins with a two-step process: registering for the conference and reserving a room at the hotel. These two steps require the completion of two different forms, mailed to two different locations, with different information needed and deposits. **DO NOT SEND YOUR CONFERENCE REGISTRATION TO THE HOTEL, OR SEND YOUR HOTEL RESERVATION IN WITH YOUR CONFERENCE REGISTRATION!** This can delay your registration/reservation, or result in your not being registered for the conference and/or not having a place to stay in Chicago.

Pre-Registration vs. On-Site Registration

MWERA allows both pre-registration and on-site registration; however, for the following reasons, pre-registration is strongly encouraged. Pre-registrants have first opportunity to enroll in Workshops, to purchase Materials, and to attend the catered Luncheon on Friday. Pre-registration is also less expensive! To pre-register for the 1999 Annual Meeting you must complete the form on the following page and return it, with your check or money order for payment in full, to Jean W. Pierce, MWERA's Executive Officer.

Pre-registrations must be postmarked by September 24th to qualify for the reduced rates!

On-site registration will be available at the registration desk on the 14th Floor of the Holiday Inn Mart Plaza beginning at 1:00 pm on Wednesday, October 13th and continuing though 5:00pm on Friday, October 15th.

The dates of our conference (October 13–16, 1999) are very busy ones in the city of Chicago, with several conventions and activities all going on at the same time. Hotel space will be tight, if not completely unavailable, to those who do not have confirmed reservations. Our convention hotel, the Holiday Inn Mart Plaza, is holding a block of rooms for MWERA—99 attendees; however, they will only hold these rooms until September 24th! To ensure that you have a place to stay please make your reservations with the hotel early, since once these rooms are gone we cannot guarantee housing anywhere in downtown.

Conference Registration and Hotel Reservation forms can be found on pages 39 and 40.

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A Letter From the Editors

It has been a great delight and challenge for us to serve as co-editors of the Mid-Western Educational Researcher for the past three years. We started off with lofty goals and some general notions of how to maintain the high standards of the journal and, as we reflect back on our editorship, are pleased with the direction which the journal has taken. It has been a joy to work with an active editorial board which has freely shared suggestions and new directions, which we've endeavored to carry out.

Allow us to summarize for you what we feel have been major accomplishments of the past three years for the journal, and for us as editors.

- Reduced the average manuscript review time from 17 weeks to 13 weeks. There's still room for improvement, but we're headed in the right direction for quick manuscript turnaround!
- Established a cycle of issues that reflects the nature of MWERA. That is, the Winter issue is devoted solely to conference addresses and papers, informal photographs, and conference-related briefs from the president and conference chair. The Spring and Autumn issues present refereed research manuscripts from across the divisions of MWERA. On alternate years, the Autumn issue focuses on a special, timely topic and is organized by a guest editor. The Summer issue provides the conference program.
- Initiated a feedback program for reviewers. In conjunction with the MWERA commitment to the professional development of its graduate student and faculty members, blind copies of reviews and the ultimate editorial decision regarding manuscripts are shared with reviewers. This enables reviewers to see how others rated and commented on a manuscript with which they were involved and to polish their skills and approaches to manuscript review.
- Set up a rotation schedule for the editorial advisory board. To provide continuity to the editorial board of the journal, membership was staggered so that one third of the board rotates off each year, and two thirds continues. This has provided more balance across divisions, mentoring and training in board responsibility for new members, and kept the group young and lively!

With this, the Autumn issue, our term as co-editors expires. We will serve in an advisory capacity to the new editorial team for one year as they become established and set their own goals for the journal to reflect the evolution of MWERA.

Who is the new editorial team? It's a "dynamic duo," both who have been highly active and visible in MWERA over the years. Mary Bendixen-Noe is assistant professor at The Ohio State University at Newark. Mary will manage the review of manuscripts and the logistics of publication and mailing of the journal. Kim K. Metcalf, past president of MWERA, is associate professor at Indiana University. Kim will oversee the production of the journal and assist with reviews in his area of expertise.

While there is a backlog of manuscripts ready for publication which we will pass along to the new editorial team, this is a great time for you to dust off the old computer and retool your conference paper into a publishable manuscript. It's also a good time to break into publishing by offering to serve as a reviewer of manuscripts.

Guidelines for submitting your manuscript are found elsewhere in this issue. Please send your manuscript to Mary Bendixen-Noe. Better yet, go up and introduce yourself to her and Kim during this year's conference. One of the highlights for us as editors has been to meet so many of you and to become familiar with your research efforts. You have been supportive, patient, and encouraging...and have made the past three years a pleasure for us to serve both you and the organization.

Thanks to all of you for your help and support!

Sincerely,

Deborah L. Bainer
Gene A. Kramer
Richard M. Smith

MWERA-99 Conference Registration Form

October 13 – 16, 1999 – Holiday Inn Mart Plaza, Chicago, IL

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MWERA Division Preference: ____________ Area of Specialization: ____________

Is this your first MWERA conference? ☐ Yes ☐ No

If YES, how did you learn about MWERA? ____________

Workshop Registration

Advance registration for workshops is strongly encouraged. All workshops are subject to cancellation for insufficient registration, and are open to on-site and same-day registration on a space-permitting basis only.

☐ W.1510.AH	No Fee
☐ T.1030.ST	No Fee
☐ F.1510.LH	No Fee
☐ F.1610.AH	No Fee
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MWERA Member	$45.00	$55.00
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Student member (see note below)	$30.00	$35.00
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TOTAL Registration Fee Enclosed: ____________

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TOTAL Materials Costs Enclosed: ____________

TOTAL AMOUNT ENCLOSED: ____________

The Friday Luncheon is included in the Registration Fee. Please help us plan for the correct number of attendees!

Will you be attending the Friday Luncheon? ☐ Yes ☐ No

Will you require a special menu? ☐ Yes ☐ No If YES, please describe: ____________

Will you be staying at the Holiday Inn Hotel? ☐ Yes ☐ No If YES, which nights (circle) Tue Wed Thu Fri Sat

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October 13 – 16, 1999

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Smoking Preference: ☐ Smoking ☐ Non-Smoking

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